

2012

THE MIND'S EYE

A Liberal Arts Journal

Massachusetts College of Liberal Arts

ARTICLES BY:

Gerol Petruzella

William Montgomery

SHORT FICTION BY:

Deborah Brown

Jason Wandrei

POETRY BY:

Jill Gilbreth

Melanie Mowinski

Mark D. Miller

Barry Sternlieb

Jeff McRae

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BOOK REVIEWS BY:

Seth Kershner

Gregory Scheckler



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2012

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In This Issue

Let us tenderly and kindly cherish, therefore, the means of knowledge. Let us dare to read, think, speak, and write.

— John Adams

This issue of *The Mind's Eye* includes a wealth of poetry, short stories, articles, and book reviews. The poetry is drawn from an event at *PRESS: LetterPRESS as a Public Art Project*. It was presented in two evenings of poetry readings during the fall of 2011 that featured faculty writers from Massachusetts College of Liberal Arts (MCLA) and writers from the Berkshires and southern Vermont areas. The *PRESS* gallery was founded by MCLA Assistant Professor of Art Melanie Mowinski with a 1969 Vandercook proof press as its centerpiece. In this hybrid gallery, teaching and studio space, Mowinski brought back the private practice of the pressperson to her students and the public—creating a performance of printmaking, as well as a sense of community.

Along with the poetry are two short stories about the happenstances of life by Deborah Brown and Jason Wandrei. Brown's story takes us to the inner life of a middle-aged woman who discovers that she is disoriented after leaving her baby for the first time. She finds herself helping an elderly senator, who is feeling another kind of confusion. Wandrei's story is about a family's struggle to survive a daughter's addiction to drugs.

The articles take us in two different directions of thought; one from William Montgomery's "Liberal Scientists, ABMs, and the Nuclear Arms Race," which reminds us that the idea that nuclear weapons might lead to a dangerous arms race is older than nuclear weapons themselves. Gerol Petruzella's "External Goods and the Good Life" considers the connection between having external goods and leading a happy, human life as explored within Greek thought.

Finally, Gregory Scheckler and Seth Kershner review recent books from their respective academic fields. Scheckler reviews *New Brain Trends in Art, a Review of Neuroarthistory: From Aristotle and Pliny to Baxandall* and *Academically Adrift: Limited Learning on College Campuses*, while Kershner reviews three books on Giuliana Sgrena's *Iraq War Diaries*.

Frances Jones-Sneed, *Managing Editor*

External Good and the 'Good Life'

BY GEROL C. PETRUZELLA, PH.D.

At least as early as Herodotus' account of the encounter between Solon and Croesus, the connection between having external goods and leading a happy human life is a live and important issue within Greek thought. In the *Histories*, the 6th-century Athenian statesman Solon reportedly meets with the mythically wealthy Lydian king Croesus, and cautions him against counting himself happy on account of his vast riches:

When [Solon] got there, Croesus entertained him in the palace, and on the third or fourth day Croesus told his attendants to show Solon around his treasures, and they pointed out all those things that were great and blest. After Solon had seen everything and had thought about it, Croesus found the opportunity to say, "My Athenian guest, we have heard a lot about you because of your wisdom and of your wanderings, how as one who loves learning you have traveled much of the world for the sake of seeing it, so now I desire to ask you who is the most fortunate man you have seen." Croesus asked this question believing that he was the most fortunate of men ... Solon

replied, "To me you seem to be very rich and to be king of many people, but I cannot answer your question before I learn that you ended your life well. The very rich man is not more fortunate than the man who has only his daily needs, unless he chances to end his life with all well. Many very rich men are unfortunate, many of moderate means are lucky. The man who is very rich but unfortunate surpasses the lucky man in only two ways, while the lucky surpasses the rich but unfortunate in many. The rich man is more capable of fulfilling his appetites and of bearing a great disaster that falls upon him, and it is in these ways that he surpasses the other. The lucky man is not so able to support disaster or appetite as is the rich man, but his luck keeps these things away from him, and he is free from deformity and disease, has no experience of evils, and has fine children and good looks. If besides all this he ends his life well, then he is the one whom you seek, the one worthy to be called fortunate. But refrain from calling him fortunate before he dies; call him lucky. It is impossible for one who is only human to obtain all these things at the same time, just as no land is self-sufficient in what it produces. Each country has one thing but lacks another; whichever has the most is the best. Just so no human being is self-sufficient; each person has one thing but lacks another. Whoever passes through life with the most and then dies agreeably is the one who, in my opinion, O King, deserves to bear this name. It is necessary to see how the end of every affair turns out, for the god promises fortune to many people and then utterly ruins them" (Herodotus, *Histories* 1.30-32).

Two distinct theses vie for our assent. On one hand, health, wealth, political advantage, and prosperity—all circumstances contingent upon chance—generally are accepted as inextricable parts of a fully human life. Indeed, the very terms we have come to use to translate the Greek *eudaimonia*¹, 'flourishing' or 'well-being', carry with them definitive overtones of completeness². The person who flourishes does so not merely in virtue of a narrowly applied set

¹ I refrain from using systematically one English translation of the term *eudaimonia* because of the great danger of inadequate or incomplete translation. For the most part, I will use 'flourishing,' 'well-being' and 'happiness' relatively interchangeably for ease of reading when the context allows. In cases wherein fine distinctions of meaning are of foremost concern for the discussion at hand, I will leave the term and its related forms untranslated.

² 'Completeness,' *teleiôtês*, is one of the important characteristics of happiness in the ancient tradition as well, hence the contemporary emphasis. Chapter 4 will provide in-depth consideration of this term and its consequences.

of behaviors or states, but rather precisely insofar as, in a wide range of areas of living and conduct—the intellectual, the moral, the physical, the social, the technical, the spiritual—he exhibits an overarching, all-encompassing state of excellence that transcends any one of these individually. This is the ideal most explicitly expressed in Aristotle's concept of the unity of the virtues, and it is certainly compatible with, if not an explicit doctrine within, other philosophers' systems of thought.

On the other hand, beginning with Socrates' investigations linking, and even identifying, happiness and virtue with knowledge throughout Plato's 'Socratic' dialogues, a foundational tenet of the ethical tradition is the premise that achieving happiness is within the control of the individual human agent. It would be incomprehensible for the world to be ordered in such a way that the best kind of life should be inaccessible to our human efforts, or that we should be held morally responsible for accomplishments or failings which result from circumstances beyond our control. Aristotle expresses this insight when he says that "all who are not maimed as regards excellence may win it by a certain kind of study and care" (*EN* i.9, 1099b18-19).

The way in which a philosopher attempts to resolve the tension between these two, deeply intuitive ethical insights has a major impact on the direction of his ethics as a whole. Many contemporary and current issues in the study of ancient Greek ethics, epistemology and philosophy of mind are squarely grounded in interpreting the connection between prosperity, virtuous character, knowledge and the 'good life,' *eudaimonia*, generally; for example, the debate between intellectualism and inclusivism in Aristotle's ethics, or investigating the Stoic 'revival' of Socrates' identity of virtue and knowledge.

Beyond resolving an intriguing puzzle of interest to historians of philosophy, however, what is the need for such a unified account of external goods? Contemporary ethics is the philosophic discipline concerned with both describing and prescribing human actions and modes of living, offering rational and pragmatic guidance for our interactions with each other on a daily basis. In this context, should the ethicist, concerned with relevantly engaging the lives of students, economists, doctors, soldiers and merchants, care about the ancients' thoughts on chance, virtue and flourishing? Yes, for several important and related reasons. One of the most urgent issues facing contemporary ethics is that which confronts philosophy generally: discovering and describing its role and relevance in our contemporary world of science, cultures and value systems of all kinds vying for attention in the 'marketplace of ideas.' As

philosophers, we find traditional assumptions and expectations insufficient to validate our projects; long-established pillars of the philosophical community and investigation are found to be presumptions grounded, at least in practice, in specific cultural and historical factors, few of which can make legitimate claims on our assent, absent rigorous supporting research in the wide—and ever-widening—world of knowledge beyond the borders of the Western analytic tradition. Especially in ethics, the branch of philosophy most particularly committed to bridging the gap between theory and practice, the conscientious philosopher can no longer—if indeed he ever could—rest content with the presumption that the complexities of human interactions, on the local and national scales, are somehow usefully explicable by a theory that takes into account only those factors within the conscious control of the individual human agents involved. Discoveries in various fields of study force us to recognize a vast array of factors which we have barely begun to recognize, let alone control, yet which are undeniably efficient causes in some of the most immediate and fundamental aspects of our lives:

- psychology (with its discoveries about how pre-conscious, unconscious and non-rational factors influence decision-making and character in even the most reflective and critical agents)
- economics (where we see potent forces impacting the availability of the basic prerequisites for human biological existence for huge segments of the world's population—abstract market pressures traceable to no conscious agent, but rather explicable via mathematical models that represent the ebb and flow of currency and commodities)
- sociology (investigating the very real ways in which social groups—religious communities, governments, corporations—must be acknowledged as on par with human individuals in terms of agency, and whose actions, motivations and intentions often are irreducible to those of their component persons)

We may well be disinclined to admit that this messy and complex picture truly represents our proper field of study. Yet it would be disingenuous to avoid confronting the relevance of these factors by clinging to the claim that what is outside of our control is thereby removed from the realm of our ethical responsibility. Given such a world as ours, with a multitude of enormously

efficient impersonal forces of our own making, and given the great capacity for harm we have built up through constructing our systems of abstract agency, to endorse any abdication of personal responsibility would represent the antithesis of the ethical project, if not an enormous crime. Besides, we must take care not to construct a false dilemma: the addition of so many factors influencing our lives has by no means verified the determinist thesis. We still enjoy an incredible range in which to exercise our individual free will and consciously make choices for certain reasons, with certain intentions, with certain motivations, in spite of certain consequences; and these decisions, influenced though they are by such a host of external circumstances, are still our own moral choices. They are properly evaluable as such, and the ethical project is still the best way we have to provide the rational human agent with reliable guidance to live justly and fairly.

We can now see how these considerations support the project of interpreting the connections between external prosperity, virtue, knowledge and *eudaimonia*. The ancients generally accept the claim that, on the one hand, *eudaimonia* is something within our power to achieve, regardless of our circumstances. On the other hand, they also recognize that certain common external goods — physical health, education, social standing — frequently are present or absent due to circumstances that are *a fortiori* beyond our control. If we consider it necessary to avoid the charge of elitism, any acceptable eudaimonistic theory must find a way to allow more than a privileged minority to attain *eudaimonia*, since few individuals, if any, are completely furnished with all requisite external goods. Still, such a project must carefully balance the influences of chance events with the roles of virtuous character and knowledge, both dependent upon education, in achieving *eudaimonia*. There is an evident and useful parallel between the problem framed by the ancient eudaimonists—explaining the influence of chance and the role of moral education in achieving happiness—and that facing contemporary ethicists—exploring the extent of the influence of uncontrolled factors over our moral decision-making as compared with the exercise of our rational, morally informed free will. I am inclined to press the strong claim that these are in fact the same issue, simply dressed in different terminology; but one need not go so far to recognize the value of exploring this connection. The parallel structure of the two issues provides a legitimate basis for investigating the history and consequences of the one, with the hope of discovering insights relevantly applicable to the other. Once we have discovered a coherent basis for the ancients' way

of dealing with chance, virtue and happiness, we can reasonably hope to find interesting and useful things to say about these relationships in the context of contemporary approaches to these issues.³

Despite the critical significance of this issue for the development of eudaimonistic ethics, to date scholarship on the topic of external goods has been piecemeal, parceled out and investigated according to individual figure or philosophic tradition; there has been no comprehensive analysis. As a result, the contemporary discourse in virtue ethics lacks a coherent treatment of the connections—developments, refinements, rejections, responses—between successive philosophers' thoughts on external goods and *eudaimonia*. The first task of the present work will be to present and develop such an historical analysis of the treatment of external goods in the thought of four central figures and traditions of ancient Greek philosophy: Socrates, Plato, Aristotle and the Stoics. Each of these traditions addresses the question of external goods, and its role in giving an account of the good life, in a manner uniquely its own; yet also is responsive to the broader milieu of the philosophic community and history it inherits. Following upon this exegesis, the final goal of this project will present and explore my own analysis of external goods and their role in the constitution of *eudaimonia*.

Socrates

The Socrates we know is, of course, primarily a literary construction, almost a fictional character, so little do we know of Socrates the historical man.⁴ Since our account of his philosophy is at best second-hand, preserved primarily in the Platonic dialogues, wherein it is used by Plato for his own purposes, we cannot make such bold claims about his thought as we can about other philosophers whose work has survived through a more direct manuscript tradition. Nevertheless, it may be less important philosophically (though certainly of interest historically) to reconstruct the positions of the historical

³ I am certainly not the first to operate under this presumption. The tradition of explicitly mining the ancients' thoughts, and specifically their eudaimonism, for relevant insights into contemporary ethics is long and well-founded. For a representative sample, cf. H. Sturt (1903). 'Happiness', *International Journal of Ethics* 13.2, pp. 207-221; J. Moffitt Jr. (1938). 'The Pursuit of Human Happiness', *Ethics* 49.1, pp. 1-17; D.A. Lloyd Thomas (1968). 'Happiness', *The Philosophical Quarterly* 18.71, pp. 97-113; J. Kekes (1982). 'Happiness', *Mind* 91.363, pp. 358-376; G. Harman (1983). 'Human Flourishing, Ethics, and Liberty', *Philosophy and Public Affairs* 12.4, pp. 307-322.

⁴ See C.P. Parker (1916) for his classic examination of the issues surrounding the discovery of the historical Socrates.

Socrates—whatever those positions might have been—than to analyze and respond to the received understanding and interpretation of what we might call the ‘Socratic tradition.’ This philosophical approach had a formative influence on Western ethics, starting from Socrates’ immediate successors through late antique and mediaeval philosophy, and even up to the scholarship of the modern period.

One thing that we can derive with reasonable confidence about the Socratic ethics is the claim that wisdom, virtue and happiness share an essential identity. Arguments for this claim are found in several of Plato’s dialogues (*Philebus*, *Theaetetus*, *Republic*), and particularly in the *Euthydemus* and *Meno*. Here Socrates maintains both that people take good fortune (*eutuchia*) to be “the greatest of the goods,” and that wisdom (*sophia*) can be identified with good fortune because it makes people more fortunate (279c7-8; 279d6). The reason for this is because wisdom never makes a mistake “but must necessarily do right and be lucky—otherwise she would no longer be wisdom” (280a7-8). Inasmuch as knowledge rules and rightly conducts action, it provides people with good fortune and well-doing (*eupragia*) (281b). The commonly held thesis that we do well through having many goods might then be true on one important condition: what people usually call ‘goods’—including moral virtues, such as justice, temperance and courage—are not goods in themselves, but count as goods if and only if practical wisdom (*phronēsis*) and wisdom (*sophia*) rule over them (*Euthydemus* 281a8-e1). We are not happy by the mere presence of things such as wealth or beauty (*Meno* 87e-88a), because such things can harm us if not guided by *sophia*. Similarly, if one takes away knowledge from crafts, such as medicine or shoemaking, no craft can be performed rightly: medicine cannot produce health, nor can shoemaking produce shoes, nor can the pilot’s craft prevent loss of life at sea (*Charmides* 174c-d). The right use of these goods (wealth, beauty) and crafts (medicine, shoemaking, piloting) benefits us, and their wrong use harms us (*Meno* 88a-b); knowledge is what guarantees their right use. This distinction can be applied to the moral virtues, as well. If we suppose that a moral good, such as courage, is a certain kind of recklessness or boldness, and that, accordingly, it is not accompanied by wisdom, it can indeed harm us. If we want to defend the thesis that moral virtues are necessarily beneficial components of the happy life, they must somehow be forms of wisdom, since “all the qualities of the soul are in themselves neither beneficial nor harmful,” but when directed by wisdom or folly they become beneficial or harmful (*Meno* 88c-d).

The Socratic thesis outlined above not only makes positive claims about wisdom and happiness, however; it equally clearly argues that the standard complement of 'goods' share in the happy life only derivatively, if at all. The premise that wealth, health, beauty, strength, courage, generosity and the rest of the *arêtai* are completely neutral with respect to value for our lives is of course appropriated and developed by the Stoics as their central doctrine of 'indifferents.' Our investigation into Socrates' conception of happiness will need to explore the origin and development of this claim, as well as the criteria of harm and benefit to which he appeals in order to justify it. Once we have done this, we will have the basis for evaluating the Socratic position in relation to later traditions, both concurring with and dissenting from his position.

Plato

Any conscientious commentator on Plato will have to deal with the issue of organizing his works: whether the Platonic corpus can convincingly be interpreted chronologically, illustrating a development of Plato's thought from a derivative disciple of Socrates' doctrines to a fully mature philosopher presenting his own theories;⁵ or whether we must, as John Cooper convincingly argues, suspend definitive judgments about the relative composition of the various works and, as he puts it,

relegate thoughts about chronology to the secondary position they deserve and to concentrate on the literary and philosophical content of the works, taken on their own and in relation to the others. ...chronological hypotheses must not preclude the independent interpretation and evaluation of the philosophical arguments the dialogues contain; so far as possible, the individual texts must be allowed to speak for themselves (Cooper (ed.) (1997), pp. xiv-xv).

Such eminent Plato scholars as Gregory Vlastos, Charles Kahn and Gail Fine have weighed in on the debate concerning the appropriate ordering of the dialogues. For our purposes, however, we can afford to set this issue aside as secondary. No matter how one approaches the Platonic corpus, it is accepted that the *Philebus* certainly is one of Plato's last works, and also is generally agreed to be the work that represents Plato's most mature positions on the question of

⁵ See C.M. Young's "Plato and Computer Dating" in C.C.W. Taylor (ed.) (1994). *Oxford Studies in Ancient Philosophy* XII (Oxford: Clarendon Press) for a survey of various stylometric investigations into the relative dating of Plato's works.

identifying the good human life, overall. Unlike the earlier 'Socratic' dialogues, the *Philebus* portrays the character of Socrates not in a state of perpetual inquiry and *aporia*, but rather propounding a definite set of views through the development of the conversation: Protarchus tells him "we should not take it that the aim of our meeting is universal confusion; if we cannot solve the problem, you must do it, for you promised" (*Philebus* 20a3-4), and Socrates proves more than willing to oblige him.

Philebus, Socrates' first interlocutor, represents the position that pleasure constitutes the good for humans (though through most of the dialogue it is Protarchus who converses on behalf of this position, with Philebus contributing occasional supporting comments). "Philebus holds that what is good for all creatures is to enjoy themselves, to be pleased and delighted, and whatever else goes together with that kind of thing" (*Philebus* 11b3-4). On the other hand, Socrates is committed to defending the thesis that "not these, but knowing, understanding, and remembering, and what belongs with them, right opinion and true calculations, are better than pleasure and more agreeable to all who can attain them; those who can, get the maximum benefit possible from having them" (*Philebus* 11b6-c3). Given these initial competing positions, Socrates gives the guiding structure of the inquiry: "each of us will be trying to prove some possession or state of the soul to be the one that can render life happy for all human beings" (*Philebus* 11d3-4).

The first section of the dialogue (11a-20) sets up and takes us through several difficulties faced by both the proponents of pleasure and of reason before we legitimately can endorse one as being truly good for humans. But before the reader (or the discussants) can get too comfortable with a rehashing of the well-established conflict between pleasure and reason, Socrates introduces a novel course for the discussion to take. At 20b3, when the discussion has hit a seemingly insoluble knot, after an involved discussion of unity and plurality, limit and unlimitedness, Socrates interjects, as a divinely-inspired memory, "a doctrine that once upon a time I heard in a dream—or perhaps I was awake—that I remember now, concerning pleasure and knowledge, that neither of the two is the good, but that there is some third thing which is different from and superior to both of them." Since, if we can identify some third item other than reason or pleasure as being identical with the good, it makes moot the project of pinning down the precise characteristics of pleasure (which had led to the previous difficulties), since it would be disqualified from its candidacy for the good.

With this tangle of metaphysics safely bypassed, the main discussion of the identity of the human good is free to continue. Socrates and Protarchus first come to agree on some characteristics of whatever turns out to be the good: it "is necessarily bound to be perfect (*teleios*)" (*Philebus* 20d1)—and in fact "the most perfect thing of all" according to the enthusiastic Protarchus — and is 'sufficient' (*hikanos*): in setting up a fair comparison between the life of pleasure and the life of reason. Socrates reminds us that "if either of the two is the good, then it must have no need of anything in addition. But if one or the other should turn out to be lacking anything, then this can definitely no longer be the real good we are looking for" (*Philebus* 20e5-6).

The centrally interesting feature of this dialogue is precisely Plato's characterization of the best human life as a "mixture" or "combination" of reason and pleasure. Just as one living the life of pure, unadulterated pleasure "would thus not live a human life but the life of a mollusk" (21c), so, too, the life of pure reason is equally not the good life, "since otherwise it would be sufficient, perfect, and worthy of choice for any of the plants and animals that can sustain [it], throughout their lifetime" (22b). The exact character of this "mixture" is investigated in some depth as the dialogue progresses; however, the salient point to note here is the definite non-intellectualist consequences of Plato's position. It is frequently emphasized that Plato, following Socrates, identifies virtue and the good with knowledge; it is not as frequently noted that he does not thereby mean to devalue applied knowledge or science. When discussing the method of mixing knowledge and pleasure together in the well-balanced life, Socrates asks Protarchus which sciences should be included in the mix—the purest and truest only, or some of the others as well:

Soc. [O]ne kind [of science] deals with a subject matter that comes to be and perishes (*ta gignomena kai apollumena*), the other is concerned with what is free of that, the eternal and self-same (*hōsautōs onta aei*). Since we made truth our criterion, the latter kind appeared to be the truer one. ... If we took from each sort the segments that possess most truth and mixed them together, would this mixture provide us with the most desirable life (*ton agapētōtaton bion*), or would we also need less-true ones? **Prot.** We should do it this way, it seems to me. **Soc.** Suppose, then, there is a person who understands what justice itself is and ... all the rest of what there is. ... Will he be sufficiently versed in science if he knows the definition of the

circle and of the divine sphere itself but cannot recognize the human sphere? **Prot.** We would find ourselves in a rather ridiculous (*geloian*) position if we were confined entirely to those divine kinds of knowledge (*en tais theiais ... epistēmais*), Socrates! **Soc.** But how about music: Ought we also to mix in the kind of which we said a little earlier that it is full of lucky hits and imitation (*stochaseōs te kai mimēseōs*) but lacks purity (*katharotētos endein*)? **Prot.** It seems necessary to me, if in fact our life is supposed to be at least some sort of life (*eiper ge hēmōn ho bios estai kai hopōsoun pote bios*) (*Philebus* 62ba4-5).

The answer agreed upon by Socrates and Protarchus is the broader alternative: the best human life needs even the applied sciences, those fields of knowledge whose objects are the imperfect, impermanent products of generation, and even the sorts of pursuits that involve chance, if our life is to be a meaningfully lived experience.⁶

Aristotle

Although Aristotle never presents a unified account of external goods in the *EN*, there is evidence that he understood the need for such an account. In some passages, Aristotle explicitly argues that the exercise of at least certain virtuous actions requires external goods (*MM* ii.8, 1207b16); while elsewhere, he equally clearly maintains that it would be “too defective” for the highest human good to be left to chance (*tuchē*) (*EN* i.9, 1099b24). Since few individuals are completely furnished with all requisite external goods, any acceptable eudaimonistic theory must allow more than the elite few to attain *eudaimonia*, in spite of their lack of external goods.

In Book i of the *Nicomachean Ethics*, Aristotle identifies certain essential features of happiness: *eudaimonia* is “an activity of soul...in accordance with... the best and most *teleios* excellence” (*EN* i.7, 1098a16); it is “living well and

⁶ Although the predominant trend in Platonic commentary has been toward an intellectualist interpretation, note often is taken, even by intellectualist commentators, of the necessity to acknowledge a tension here, albeit usually as a preliminary to explaining it away. Cf. e.g. R.C. Lodge (1924), pp. 488-9: “We have, then, in Plato’s thought, two strata [idealism and pragmatism] which are logically incompatible. ... A study of the Dialogues shows convincingly that in Plato’s own thinking the two standpoints...are combined, and their combination is present in his most fundamental conceptions [e.g. the philosopher-king]. ... The only satisfactory way out of this difficulty would be to insist that the complete interpenetration of Idea and action-systems represents the highest human life.” Lodge, of course, claims that such a “complete interpenetration” fails on logical grounds as a viable alternative.

doing well" in general (*EN* i.8, 1098b21). It is "*teleion* [*kai*] *autarkes*" (*EN* i.7, 1097b20), and "*telos kai teleion...pantēi pantōs*" (*EN* i.10, 1101a18); it must be "*eti d' en biōi teleiōi*" (*EN* i.7, 1098a18); we consider it "thoroughly established and not at all changeable" (*EN* i.10, 1100b3); changes after one's death, even though they can affect one's *eudaimonia* to a degree, are never enough to reverse it (*EN* i.11, 1101b6). The permanence of *eudaimonia* ensures that "that which is sought will belong to the *eudaimōn*, and he will be such [i.e., *eudaimōn*] throughout his life" (*EN* i.10, 1100b18). All of these descriptions, which emphasize the nature of *eudaimonia* as *teleion*, or complete, create a picture of *eudaimonia* as free of the influence of chance circumstances. The individual who is properly brought up has the appropriate disposition and thereby chooses to act in accordance with virtue, actually acts so, and desires and enjoys acting so—this person will enjoy the best and most excellent sort of life. He will not be subject to conflicts of desires, as are those who pursue various external goods (*EN* i.8, 1099a12), but instead will aim at and achieve those goods which are not only pleasant to himself, but pleasant by nature: "the life of these [those who are lovers of excellence] does not need pleasure as a sort of ornament, but has pleasure within itself" (*EN* i.8, 1099a15).

This conception of *eudaimonia* as self-sufficient seems to be compatible with another account Aristotle gives in *EN* i chapters 8 and 12. Here, Aristotle emphasizes that the potentiality or state (*dunamis*), the simple possession (*ktēsis*) of virtue, is not sufficient to constitute *eudaimonia* (1098b32-1099a5, 1101b10-1102a4). Rather, *eudaimonia* is the *activity* of soul according to complete excellence. Someone who possesses the potentialities of certain virtues but does not actively express them, such as, in Aristotle's own examples, someone asleep, or a spectator at the Olympic Games, cannot truly be said to be *eudaimōn*. However, a consequence of this stipulation is that at least some minimal external goods become necessary for the exercise of some virtues: for example, the virtue of generosity requires one to have property with which to be generous, friendship requires worthy friends, and courage requires circumstances conducive to the expression of bravery (*EN* i.8, 1099a32 et seq.). In addition, there are certain minimal external goods with which everyone must be supplied in order even to have a life at all—dependable food, shelter, and so on: without these being adequately provided, it will not be possible to achieve *eudaimonia*. And finally, as noted both here (1097b11 et al.) and in the *Politics* (*Pol.* i.7, 1253a2), man is a *zōion politikon* by nature; and as such, a complete human life cannot be limited to the individual, but must include

his own immediate circumstances: "parents and children and wife and altogether friends and fellow-citizens" (*EN* i.7, 1097b10). This necessary connection of the individual's good with his family and peers directly informs the discussion in Chapter 10, where it is examined whether and to what extent one's *eudaimonia* is affected by the character and deeds of one's ancestors and descendants. All of these considerations suggest—indeed, require—an understanding of *eudaimonia* that extends beyond one's own character or virtues. What makes this understanding problematic is that it seems incompatible with Aristotle's initial characterization of *eudaimonia* as stable, permanent, or somehow insulated from changeable circumstance. As Heinaman notes, self-sufficiency is a formal requirement of *eudaimonia* for Aristotle, both in Book i and in Book x (1097b7 ff., 1176b5). At 1097b14-15, the self-sufficient (*to autarkes*) is defined as "that which alone makes life desirable and lacking nothing." If *eudaimonia* is truly self-sufficient, it is unclear how it can be lacking in any respect, according to the above definition. Yet it is apparent that *eudaimonia* by itself, when we understand it as Aristotle defines it, "activity of soul in conformity with virtue," leaves out many items which make our life desirable.

Stoics

Commentators have made much of the apparent similarities between the way the Stoics account for and describe the good human life and the description offered by Plato's Socrates. And indeed, there is a great deal of support one can adduce to a thesis identifying strong ties between the two traditions. Compare Socrates' decision exclusively to study ethics, leaving off his initial forays into metaphysics and other philosophical fields, with Chrysippus' observation, relayed by Plutarch: "For the theory of good and bad things must be attached to these, since there is no other starting-point or reference for them that is better, and physical speculation is to be adopted for no other purpose than for the differentiation of good and bad things" (*On Stoic self-contradictions* 1035d). Again, compare the central Socratic thesis—that knowledge, full and complete, is sufficient for right action—with the basically identical, if much more finely developed, tenet of Stoicism that virtue is "a certain character and power of the soul's commanding-faculty, engendered by reason, or rather, a character which is itself consistent, firm, and unchangeable reason" (Plutarch, *On moral virtue* 441d).

The Stoics begin with a definition of the good as, "that whose peculiar property is that it is always beneficial." After explaining their notion of benefit in terms of perfect proper functions, they address the question: what sorts of things meet the criterion of being good, that is, being always and only beneficial? In perhaps the *locus classicus* of Stoic doctrine on the topic of the good, Diogenes Laertius writes the following to explain why certain items commonly held to be goods, such as wealth or bodily health, do not in fact qualify as good:

For just as heating, not chilling, is the peculiar characteristic [*idion*] of what is hot, so too benefiting, not harming, is the peculiar characteristic of what is good. . . . Furthermore they say: that which can be used well and badly is not something good (Diogenes Laertius 7.103).

It is the fact that health, wealth and such things are capable of both benefiting *and* harming that disqualifies them from the class of goods. I wish to bring attention to Diogenes' description of that which is essentially and peculiarly characteristic of any good thing, namely, what is elsewhere in Stoic literature called 'firmness' or 'fixity': it is not simply that one can be or is occasionally benefited by some state of affairs—if it were, the class of goods would be enormous, and would indeed include such external contingencies as health, property, social standing, and the like; but rather, the good is always and only beneficial, and nothing that is not always and only beneficial is good.

This account must be supplemented with some further explanation of exactly what 'benefiting' entails. On this point, we find very little significant disputation or doctrinal variation among the Stoics; the core explanation of benefit always is given in terms of harmony or accordance with nature and right reason: "[S]ome proper functions are perfect, and . . . these are also called right actions" (Stobaeus 2.86,4); "since reason, by way of a more perfect management, has been bestowed on rational beings, to live correctly in accordance with reason comes to be natural for them" (Diogenes Laertius 7.86). A complete understanding of the Stoics' conception of the connection between nature and reason must include a familiarity with their naturalistic presuppositions about the origin of ethical value. By observing the natural processes and behaviors of plants, non-human animals and infants, Stoics perceived that living things seem intrinsically to possess the impulse to preserve themselves and their particular constitution. From this basis, they conclude that nature, since it is responsible for the impulses of living things, must itself be operating

according to the principles of rationality which we recognize as characterizing the natural development of organisms. This picture of a rationally active nature or universe is what lies behind the Stoic association of nature, reason and the foundation of ethical action.

Once we have gotten clear what the Stoics mean by the good (that which always and only benefits) and by benefit (that which is in accordance with nature and reason), it still remains to be determined what sorts of things meet their criteria to be considered good. A clear understanding of what goods there are is necessary for answering the question: how can we live a happy life? Aristotle notes that there is universal agreement that the happy life is that in which one does well (*eu prattein*) (EN i.4 1095a16-18). And yet, there is just as much conflict over the specific content of the notion of happiness or what constitutes it as there is agreement over it in general terms. The Stoics took it as a central concern of their ethics to offer an account of what things count as good or goods, and in what ways these things constitute the final end of action, that is, achieving happiness.

The Stoic criteria for the good have been made clear. Let us see what things meet them. We already can see that many items which are commonly believed to be goods are, on these criteria, not really goods at all: "life, health, pleasure, beauty, strength, wealth, reputation, noble birth...are not good but indifferents of the species 'preferred'" (Diogenes Laertius 7.102). These things that appear to (and sometimes do, in fact,) benefit us, and thereby seem worthy to be considered goods, fail to qualify as truly good precisely because each of them is capable of producing *both* benefit *and* harm—thus falling short of the "always and only" standard, which essentially characterizes the good. Even though possessing great wealth, for example, does sometimes benefit one, it is easy to conceive of—or even point to historical examples of—wealth resulting in harm to its possessor. This variability is characteristic of all these so-called external goods, and in fact can be extended to any condition or state of affairs subject to definite description. Let me attempt to make clearer what I mean by this. Suppose we decide that some item on the list of external goods is in fact truly a good, whose possession results always and only in benefit to ourselves and, in general, the state of the world is better when we possess it. Even further, suppose that, all things being equal, we are correct, and anyone who possesses this external good is indeed always and only benefited by it, and the world at large also is so benefited. But imagine now that we fall into the power of a corrupt monarch; and that this monarch decides to effect great evils upon

the world by conscripting into his army all persons with this external good. (We are assuming that he does in fact have the power to do as he intends.) Surely in such a case, it would be better overall if there were no, or at least few, people capable of conscription into the tyrant's army, i.e., people who possess this external good. Precisely this sort of thought experiment is given by Aristo of Chios, as reported by Sextus Empiricus in *Against the Professors* 11.64-7. The Stoics, then, were particularly sensitive to the impact contingent circumstance has upon ethical action; in fact, this forms the basis of the well-known Stoic distinction between value and indifference.

Analysis

Having evaluated the strengths and weaknesses of each major school's treatment of the question, it is appropriate to investigate whether a satisfactory account of the relation of external goods to happiness must accommodate both the insight that there is an essential connection between prosperity and the flourishing life, and that there is a real sense in which happiness is independent of any particular state of such prosperity. This apparent discrepancy is explicable through recognizing elements common among these four traditions. We can formulate an interpretation of eudaimonism that accommodates important insights of each tradition, including: a) Aristotle's account of human nature, specifically the role of external goods as necessary preconditions for leading a human life; b) the consequence of Socratic and Stoic thought that external goods ("preferred indifferent") are necessary constituents of moral action; c) Plato's and Aristotle's recognition that there must be a criterion for judging the degree of external prosperity compatible with a happy life.

If it is true, as it seems to be, that there are certain necessary external circumstances without which one cannot attain *eudaimonia*,⁷ nevertheless this can be made compatible with the earlier accounts of the self-sufficiency of *eudaimonia* by situating this self-sufficiency within the context of the individual's given circumstances. While the presence of external goods may be required, it still is up to the virtuous individual to establish his relations to his circumstances, whatever they may be, in accordance with virtue, which is still entirely within his own power.

I propose that the minimum standard of external goods sufficient to the achievement of *eudaimonia* is precisely the minimum standard of a hu-

⁷ Cf. *MM* ii.8, 1207b16: "happiness cannot exist apart from external goods."

man life, *bios*: food, shelter, and the rest of the things necessary for sustained physical existence, *zōê*; and a family and community, which are necessary components of a particularly human life. Thus, as Aristotle puts it, "*prosdeitai toutôn ho anthrôpinos bios*," "the human life has need of these things" (EN i.10, 1100b9), even though doing well or nobly does not consist in them. It is true that these minimal external elements are subject to change, and one may be deprived of them due to disaster or other misfortune. But in such a case, on the ancients' commonly shared view of what constitutes a human life, the individual is no longer leading a "life" proper at all. The necessary conditions of a human life thus are identical with the necessary conditions of the life of the *eudaimôn*, so that any agent, living a truly human life, will necessarily meet the threshold standards for the exercise of *eudaimonia*.⁸ My account thus addresses the potential problem an inclusivist account would face, namely, that achieving sufficient external goods to exercise the virtues, and hence attain *eudaimonia*, might be too difficult for more than an elite few. This thesis supporting an interpretation of the ancient concept of *eudaimonia* appears, then, to be germane, not only to resolving the historical puzzle of ancient eudaimonism, but also for supporting contemporary efforts to provide a firmer footing for a comprehensive, socially-based ethics in the democratic tradition.

8 This is consistent with Aristotle's position that neither non-human entities, such as horses or other animals, nor even human non-agents, such as children, are capable of participating in *eudaimonia*, because they cannot participate in *energeias kalous*, as he describes at EN i.10, 1099b32 et seq.

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Liberal Scientists, ABMs and the Nuclear Arms Race

BY WILLIAM MONTGOMERY, PH.D.

The idea that nuclear weapons might lead to a dangerous arms race is older than nuclear weapons themselves. In the fall of 1943, the physicist Niels Bohr, threatened by arrest in Nazi-occupied Denmark, was smuggled out of the country and flown to England. From England he traveled to the United States, where he began to serve as an advisor to the Manhattan project. He had been a revered teacher and colleague of many of the scientists in Los Alamos, who welcomed his support and cooperation with great enthusiasm. At the same time, Bohr did not come to the U.S. simply to help build a bomb or talk about physics; he also arrived with a political agenda regarding the future of Europe. It already was clear that the defeat of Germany would create a new power dynamic in Europe with the U.S. and western European states confronting a victorious Soviet Union, itself an ominous dictatorship. Bohr hoped that the atomic bomb might provide a key to restraining and influencing the Soviet State. If the U.S. and Britain were to inform the Soviets that they were building a bomb and offer to participate in an international sys-

tem of control over such weapons, it might encourage enough mutual trust and cooperation that they could avoid a new arms race following the war. Bohr assumed that Soviet physicists were quite capable of building their own bomb. As he saw it, the British and Americans could get more in return for their secret if they freely acknowledged what they were doing and avoided using it as a means of intimidation (Smith 1965: 5-8).

As a European, Bohr was, of course, acutely aware of the immense arms race that had taken place among the European powers prior to World War I. France, Germany, Austria-Hungary and Russia each had invested heavily in building their armies. At the same time, Britain and Germany conducted a particularly expensive race to construct new, modern battleships that would render all other fleets obsolete. During the interwar period, scholars and journalists often pointed to these military buildups as a major factor in the eventual outbreak of war in 1914. The influential peace movement that emerged in both Britain and the U.S. during the 1930s often blamed the arms race on munitions manufacturers who could exploit national rivalries to profit from government contracts (Wiltz 1963; Divine 1962: 65-68, 77-78). Bohr hoped that Britain and the U.S. might short circuit such a process by managing the bomb with transparency and restraint, and he wanted to contact government leaders to explain his message.

Bohr found it difficult to get an interview with government leaders; and although he finally met British Prime Minister Winston Churchill in May 1944, the two men shared little in the way of common experience. Bohr's proposal of international control over the bomb sounded a lot like the ideas of English peace advocates of the 1920s who had wanted Britain to scrap the provisions of the Versailles Treaty that placed limits on German armaments. By negotiating military parity with Germany and Russia, they hoped Britain could establish a basis for trust and cooperation that would assure collective security. Churchill, for his part, was convinced that only decisive military superiority over Germany could have prevented World War II, and he had little patience with a scheme to offer information about new weapons to another great power. Bohr travelled on to the U.S., where he established contact with President Roosevelt through Supreme Court Justice Felix Frankfurter. The President seemed receptive at first, but after talks with the British Prime Minister in Quebec, he accepted Churchill's negative verdict on Bohr and even arranged to have the scientist tailed by security agents (Lynch 1999: ch. 3; Smith 1965: 8-13; Rhodes 1986: 525-538).

Although Bohr failed in his effort to convert heads of state, the idea of peace through international cooperation still had its supporters. In March 1945, as scientists were completing the last steps in preparing the bombs that would be used to attack Japan, scientists at the Manhattan Project's laboratory in Chicago began drafting a similar argument in favor of sharing atomic information and the need for international control of the weapon. They were led by James Franck, a Nobel Prize-winning physical chemist who voluntarily had resigned his position at the University of Goettingen to protest the Nazi racial laws. The Franck Report, as the document became known, also called on the U.S. to stage a demonstration of the bomb to encourage a Japanese surrender without bloodshed. Like Bohr, Franck and his colleagues feared the possibility of an arms race. They opened their report with a warning that there were no real secrets to building an atomic bomb since all informed physicists possessed the necessary knowledge. Only international agreement could possibly prevent a ruinous competition for more weapons between the U.S. and Russia. However, an American attack on Japan would undermine trust between those two powers and make an agreement far more difficult to achieve. (Franck, et. al.) Franck and Arthur Compton, the director of the Chicago lab, presented the report to Secretary of Commerce Henry Wallace, though Wallace had little influence on the course of military planning. Compton also explained the contents of the report to the scientists advising the influential Interim Committee, a body of industrialists appointed to help plan for postwar use of the bomb, again without effect (Smith 1965: 30-34, 48-50).

By the 1960s, U.S. scientists no longer had the optimistic faith in international understanding that had motivated Bohr and Franck. The Cold War was an accepted reality, and many veterans of the Manhattan Project, along with their students and younger colleagues, willingly advised the government in its ideological struggle with the Soviet Union. However, even as scientists adopted a more militant political attitude, they remained skeptical about technology. Having seen the power of the atomic bomb and the even more devastating power of the hydrogen bomb, they doubted if weapons alone could really guarantee American security. By 1960, both the U.S. and the Soviet Union were equipped not only with bombs and bombers, but with intercontinental ballistic missiles (ICBMs), that reduced the time needed for an attack to as little as 30 minutes. Missiles deployed on submarines soon would reduce it even further. After 15 years of dramatic technological progress and the steady construction of new weapons, nobody was any safer than before: the

threats were even closer, the warning times even shorter, and the power of the weapons far greater. The arms race had left both Americans and Soviets in an even more distressing position.

Even before ICBMs were ever deployed, weapons experts in both the U.S. and the Soviet Union already were thinking about ways to counter their dangers. Their most obvious option was to use defensive weapons, antiballistic missiles with their own nuclear armament that could blast incoming warheads in outer space or the upper atmosphere before they could strike the homeland. The Soviets were the first to deploy such missiles, which they located in bases around the city of Moscow. American military officers and weapons manufacturers came up with similar missiles and proposed to the government that we deploy them in much the same manner. However, in the U.S., some soldiers, scientists and officials doubted whether defensive missiles would really work. In part they believed that nuclear warheads were so powerful that no defensive measures could really prevail against them. A defense would have to be next to perfect to stop the attackers, for any failure at all would expose the country to crushing destruction. Given such a matchup, the advantage always would lie with offensive forces. More broadly, though, the idea of defensive weapons did not really change the overall pattern of the arms race. No matter how an industrial nation chose to equip itself for protection, a determined counterpart with equivalent skills always could match its efforts. Fifteen years of experience seemed to show that continuing the arms race only would add to the suspicion, hostility and danger that had already accumulated, and even defensive weapons were no substitute for effective agreements to limit nuclear weapons. Nevertheless, many Americans deeply mistrusted Soviet intentions and, before giving up on defensive missiles, they wanted to examine the option more closely. Their experience with offensive weapons might suggest that the arms race was a futile effort, but they still wanted a closer look at what defensive missiles could accomplish.

It did not take long before faster missiles and improved radar greatly strengthened the case for defensive weapons. However, these innovations were offset by the development of Multiple Independent Reentry Vehicles (MIRVs), that gave the offense a powerful boost, too. It is easy to imagine that technical improvement in weapons might have drawn out the debate, extending the arms race through yet another cycle. The Kennedy Administration had come into office enthusiastic about strengthening the nation's military forces. The Cuban Missile Crisis may have checked some of the original ea-

gerness for weapons acquisition, but it only had marginal influence on the question of defensive weapons. Following the death of President Kennedy and the succession of Lyndon Johnson, most defense and foreign policy officials remained in office. Their decision in August 1964 to intervene directly in the Vietnam War did not seem related to defensive weapons, either. Nevertheless, the inability of the Johnson Administration to stabilize the South and fend off the communist armies from the North tried American patience. By the election year 1968, support for the war ebbed and trust in the nation's political and military leadership faded. Although engineers continued to improve both offensive and defensive weapons, politicians now had to make decisions in a radically different atmosphere, one in which military hardware no longer commanded unquestioning respect.

During the Eisenhower Administration (1953-1960), the Army took a very favorable view toward defensive nuclear missiles. In response to what was thought to be a dangerous Soviet bomber force, the Army first built a system of conventionally armed ground-to-air missiles called Nike-Ajax, that guarded selected American cities and air bases. In 1957, the Army began to modify some of these batteries to accommodate the new Nike-Hercules, a solid-fueled, nuclear-tipped missile that promised to be far more effective in knocking down enemy bombers. The Army eventually built 123 batteries that protected 26 cities and 10 SAC bases. For a time, there may have been as many as 2,300 Nike-Hercules missiles deployed around the country. The installations and their nuclear weapons were publicized in the local press, a documentary film, and even the popular television show *Lassie*. The public seemed quite satisfied, and even though nuclear testing had become very controversial, there was little objection to the missile batteries (Bright 96-125). At the same time, the Air Force also was building an anti-aircraft missile called BOMARC. Designed to have a longer range and defend larger areas, BOMARC was less reliable than Nike-Hercules, and the Air Force deployed the missile only at a few bases. Still, it complemented the Army's weapon because it would provide defenders with two shots at some incoming planes (Bright 127-148).

By 1957, when the Soviets placed their first Sputnik satellite in orbit, frightening Americans with the possibility of Soviet ballistic missiles, the Army was prepared with a new anti-ballistic missile, Nike-Zeus, that already had reached the development stage. Excluded from the race to develop an ICBM by Defense Secretary Charles Wilson, the Army was especially determined to make Nike-Zeus the standard American weapon system against the

threat of Soviet missiles (Yanarella 1977: 26-30). The Air Force had its own candidate for an anti-ballistic missile, which it called Wizard; but many Air Force officers always had doubted the effectiveness of air defense, thus Wizard did not have the same priority within the Air Force that Nike had within the Army. Since the Air Force was two years behind the Army in developing its ABM, in January 1958, Secretary of Defense Neil McElroy, Wilson's successor, authorized the Army to continue working on Nike-Zeus while he restricted the Air Force to working on the radar systems that would be needed to warn of incoming warheads and guide Nike-Zeus missiles to their targets. At the same time, though, he hesitated at the idea of actually deploying the system. Air Force critics pointed out that Nike-Zeus was not equipped to deal with decoys and other penetration aids that might accompany the Soviet reentry vehicles. In an actual attack, defensive radars could be fooled, rendering the entire effort pointless. To Air Force generals, Nike-Zeus looked like a Maginot Line, impressive in appearance but ineffective in practice; they preferred to devote funds to the Strategic Air Command and their own ICBMs (Yanarella 1977: 26, 33-35, 40-41).

McElroy did something else that had a big effect on the future of the Nike program. He created two new entities with authority over weapons research, the Advanced Research Projects Agency (ARPA) and a director of defense research and engineering. Previously, secretaries of defense had relied primarily on the military services to provide them with advice on the development of new weapons. When the services disagreed, as was often the case, the secretary of defense had to decide the issue, as Wilson had in granting the Air Force control over strategic missiles, or as McElroy had in granting the Army control over anti-ballistic missiles. These decisions were difficult, though, because the secretaries had no source of advice other than the competing services themselves. The result might be duplication of effort since secretaries were reluctant to intervene in matters they understood only poorly. By creating these new agencies, staffed by civilian experts, McElroy strengthened the hand of the secretaries in dealing with the services. Increasingly, the Department of Defense began to function more like a large industrial corporation in which the man at the top determined policy and the services carried it out (Yanarella 1977: 38-42).

Even as McElroy acted, Pentagon technical specialists began chipping away at the concept of missile defense against ICBMs. A report drawn up in 1958 suggested that missiles equipped with multiple warheads simply could

overwhelm the defense by force of numbers. The Soviets had no such missiles at the time, but Pentagon experts were in the habit of planning for the future. They did not want to see the Country commit to weapon systems that might be vulnerable to technologies they already could foresee. In the case of ABMs, an attacker might use decoys, diverting the attention of defensive radar and overloading the system. He also might attack the radar that was intended to guide defensive missiles to their targets, and no one knew a way to shield radar that would not also render it ineffective. Even worse, the defensive missiles themselves might temporarily interfere with the radar when their missiles exploded at high altitude. Such explosions were known to release highly energetic electrons that might black out radar for several minutes. A second report, issued the following year by a panel of the Presidential Science Advisory Committee, echoed these concerns, and thus stalled further consideration of defensive missiles by President Eisenhower (Kaplan 343-344).

When John Kennedy took Office in January 1961, one of his most important acts was to appoint Robert McNamara as secretary of defense. Only a few years had passed since Charles Wilson, the former president of General Motors, had served as secretary of defense; now the former president of Ford assumed that task. Nevertheless, despite having a similar background in the automobile industry, McNamara adopted a different approach to his responsibilities at the Defense Department. In the mid-'50s, Wilson had viewed himself largely as a budget manager who framed the financial limits and adjudicated disagreements among the services according to the President's overall defense strategy. He was not ignorant of military affairs, but he generally left the planning initiative up to the generals. McNamara, dissatisfied by such a passive role, intended to intervene far more actively in Pentagon planning, especially when it came to providing new weapons systems. Furthermore, he was able to take full advantage of the bureaucratic structures created by McElroy's reforms. The secretary of defense now had a highly professional planning staff of his own, independent from the staffs of the uniformed services, and McNamara quickly gave his civilian planners important new assignments (Yanarella 1977: 43-47).

In Congress, supporters of missile defense urged the administration to submit a budget that would provide for a modest initial installation of the weapons. Defense industry trade publications gave the missile a sudden burst of publicity, and newspaper journalists got a nice tour of the Army's Pacific test site. However, McNamara was no more eager to act on Nike-Zeus than

was his predecessor McElroy, and the administration budget included no funds to deploy it. In April, McNamara got a chance to explain to Congress that testing of the missile and its associated radars would not be complete before the end of the year. He recognized that the system might benefit the American deterrent and save American lives. At the same time, he repeated the now standard criticism that the system easily could be overwhelmed by sophisticated offensive forces and added a significant remark: "Finally, it is a very expensive system in relation to the degree of protection that it can furnish" (Yanarella 1977: 60-68. quotation on 68).

McNamara qualified his remark, emphasizing that technical effectiveness, not cost, was the decisive factor in his decision. Yet cost did play a significant role in his thinking. This became clear in the testimony of physicist Herbert York, the director of defense research and engineering, one of the new civilian agencies within the Office of the Secretary of Defense. York explained that Nike-Zeus could defend only a very small area. After spending billions of dollars, the Army would be able to protect only a few large cities. In addition, York thought the prospects for defending even these relatively small areas were not that good. The offense had too many advantages over the defense. In making this point, York knew he had the support of the Air Force. For the Strategic Air Command, the dominant branch of the Air Force, these advantages were a fundamental point of doctrine. The flyers believed in carrying the fight to the enemy and destroying his bases. They were not opposed to defense in principle, but they insisted that, considering its limitations, it should not drain funds away from the installation of ICBMs, which was then in full swing (Yanarella 1977: 72-75).

For a time, McNamara was able to fend off Congressional demands simply by promising to improve the Nike-Zeus system. Nike-Zeus had the disadvantage of being a rather slow missile. For this reason, it had to be fired long before the arrival of ICBM reentry vehicles in order to engage them in outer space. Destroying warheads in space is difficult, though, because they can be hidden behind a screen of chaff or distributed among light-weight decoys. To get around this problem, the Army began working on the much faster Sprint missile, which could afford to wait until enemy warheads began to reenter the atmosphere. Chaff and decoys would be slowed quickly by the atmosphere, allowing radar to identify the much heavier warheads as they plunged forward. In the meantime, Air Force contractors also had been making strides in radar technology. The mechanically aimed radar transmitters of Nike-Zeus had a

hard time keeping up with fast-moving reentry vehicles and generally had to follow them one by one. However, the new phased array radar sat motionless and directed its beams electronically, enabling it to keep up with multiple incoming vehicles at the same time. The new technology was quite expensive, but far more effective than the old. In the light of these developments, defense department planners completely lost their enthusiasm for the now obsolete Nike-Zeus, and persuaded McNamara to hold out for an improved system, now called Nike-X. Congressmen and Army generals accepted the argument for new technology and the need for further delay in constructing the system (Yanarella 1977: 82, 85-86, 90-94).

In 1964, a Pentagon report authored by Lieutenant General Glenn Kent, who served on the staff of the director of defense research and engineering, suggested a much broader argument against missile defense. Harold Brown, who succeeded York as director, had asked Kent to consider several alternatives for limiting damage to the U.S. in the case of nuclear war. Kent concluded that none of the available alternatives looked very good. Offenses are inherently cheaper than defenses. Any defense that one might construct could be overcome simply by building more offense—and at a lower cost. Thus, in an arms race between offense and defense, the offense enjoyed an unbeatable advantage. Fallout shelters fared the best, but neither the Eisenhower nor the Kennedy administrations had been able to persuade Congress to spend much money on them. Building ABMs, a much more expensive project, promised less protection. Kent's figures suggested that, even if one intended to protect only half of the nation's industry, defensive spending would have to outweigh offensive spending by more than three to one. At higher levels of protection, the ratio just got worse. American exertion simply would challenge the Soviets to construct more offensive missiles and would leave the U.S. more endangered than before. (Kaplan 320-325).

When Kent proposed that inexpensive offensive weapons could overwhelm a defensive system, he already had a specific technology in mind, Multiple Independent Reentry Vehicles (MIRVs). Since the late 1950s, American scientists and engineers had been thinking about the possibility of defensive missiles and working toward a method to counteract them. Their plan was to arm each offensive missile with multiple warheads, each aimed at a separate target. This would allow them to put a vast number of warheads into the sky at a relatively low cost. No defense could hope to stop them all, and since they carried nuclear explosives, even a few of them could devastate a target. In

the face of such warheads, defensive missiles seemed hardly worth the effort (Greenwood 68-69). The MIRV also had a second virtue relating to the problem of Soviet ICBMs. The Kennedy Administration built and deployed 1,000 Minuteman missiles, each one sheltered in an underground silo beneath a heavy steel and concrete cover. However, as the number of Soviet ICBMs began to grow, the Air Force, of course, wanted many more, enough to smash every Soviet airfield and missile silo, not to mention communications centers, industrial sites and army posts (the Navy would take care of submarine pens). Having just signed the Limited Test Ban Agreement, which brought a sense of relief to people around the world and dramatically improved U.S.—Soviet relations, Kennedy, and Johnson after him, had no desire to heat up the arms race by issuing purchase orders for more missiles. Kent's idea would allow the Air Force to cover the growing number of targets by employing MIRVs. They might be very sinister weapons, but they would attract less negative publicity than a big missile building program (Greenwood 69-72; Nolan 82-84).

Kent's notion of an arms race involving interaction between the offense and the defense was rather different from the ideas developed by peace advocates in the 1930s. They had been thinking of powerful monopolists like Du Pont, who allegedly encouraged the U.S. government to go to war in order to expand the sale of munitions. Kent's technocratic model of an arms race lacked the moral or political implications that had been important to the pacifists. For Kent, an arms race was an impersonal, mechanistic process that had little to do with human choice and a lot more to do with the kind of automatic control systems familiar to engineers and to industrial executives like McNamara. As secretary of defense, McNamara never would have employed the old-fashioned idea of an arms race as a result of conspiracy among arms manufacturers and governments. Whatever its historical validity in explaining the origins of World War I, the idea would have insulted the very businessmen on whom he had to depend for equipping the armed forces in the Cold War. By contrast, Kent's very different concept of a technological race between offense and defense was nicely suited to McNamara's needs. Ominous in its security implications but harmless in its moral overtones, the idea offered McNamara an elegant argument against ABMs that he could safely employ in Congress without fear of alienating potential allies. In many ways it paralleled the ideas of the French legal scholar and theologian, Jacques Ellul, whose new book *The Technological Society* first appeared in 1964 and was translated into English in 1967. Ellul's disapproving vision of technology as an automatic motor of hu-

man social change sold widely, and although Ellul had little interest in nuclear weapons as such, the success of his book showed that arguments like those made by Kent enjoyed respect well beyond the Pentagon.

In constructing his argument, McNamara could not use references to MIRVs in public; MIRVs still required considerable developmental work, and they remained a secret known only to generals and technical experts. However, by 1964 some scientists began to make a public case against ABMs that stopped just short of Kent's position. In response to criticism of the recently signed Partial Test-Ban Treaty, York and Jerome B. Wiesner placed an article in the October issue of *Scientific American*. The treaty forbade nuclear testing in the atmosphere, under water or in outer space, but opponents of the treaty had argued that more atmospheric testing was needed to improve America's ABM system. Wiesner, an MIT administrator who had chaired the 1959 panel of the Presidential Science Advisor and who later served as Kennedy's science advisor, and York called the ABM a destabilizing weapon. They thought it would weaken the Soviet missile deterrent, forcing the Soviets to build even more ICBMs in order to keep up. At the same time, they insisted that the defense was unlikely to work very well since it only could protect a small area while the attacker could pick the time and place of the attack. If the target was a city, many people still could be killed by fallout, simply by aiming at a point upwind. In effect, the authors tried to have it two ways, arguing that ABMs were both a threat and ineffective. However, their broader point was unmistakable. They pointed out that, since the invention of the atomic bomb, American power had grown enormously, while American security had actually declined. So far as Wiesner and York were concerned, it did not really matter whether ABMs worked or not; either way, Americans would be less secure.

McNamara's caution about potentially destabilizing weapons was not just a response to theory. During the Cuban missile crisis, he and the President had to deal with the consequences of a weapon system that aroused serious resentment on the part of the Soviets and contributed to Nikita Khrushchev's ominous decision to introduce missiles into Cuba. Most Americans had taken little notice of the American decision to deploy Intermediate Range Ballistic Missiles (IRBMs) in Turkey and Italy in the early 1960s; however, these early missiles suffered from troubling deficiencies. Installed above ground on launchers and depending on liquid fuel that had to be pumped into them immediately before firing, they were vulnerable to attack not only from incoming bombs and missiles, but even from nearby rifle fire. To an opponent,

they looked like offensive weapons useful only for a first strike. Kennedy and McNamara both were aware of this problem and agreed to install the weapons only because they feared diplomatic embarrassment. When Khrushchev paid them back by sending equivalent missiles to Cuba, they reacted aggressively with a blockade of the island, which stopped the shipment of additional weapons but could not remove those already in place. In the end, Kennedy was obliged to arrange a secret deal to quietly remove the American missiles from Turkey and Italy a few months after the Soviet missiles left Cuba. A chastened McNamara had them cut up for salvage by the end of the following April, only a year after their initial deployment (Nash 81-85, 92-98, 141-143, 164-165).

The IRBMs quickly were replaced by the much more secure Polaris submarines, which reassured the Soviets about American intentions. At this point, McNamara was in no mood to approve any more weapons that might similarly roil the arms race; however, a year later, the Soviet military began to install an ABM system of their own around the city of Moscow. In November 1964, they paraded the new ABM, nicknamed Galosh by American military officials, through the streets of the city. In the previous month, the Chinese had startled the world by exploding their first nuclear device, ignoring the Partial Test Ban Agreement recently signed by the Soviet Union, the U.S., and Britain. The Russian Galosh was a simple system like Nike-Zeus that lacked high speed rockets like Sprint, and the defense secretary did not regard it as a significant problem for the American forces. Still, these events created new pressure on the Defense Department to speed the development of Nike-X and commit themselves to put it into production (Yanarella 1977: 105-106, 114).

The Chinese bomb sparked immediate concern among civilian researchers in the Department of Defense. Although they had serious doubts about the value of a large ABM system directed against a Soviet attack, it occurred to them that a more modest system could be quite effective against the much smaller attack they might expect from China. McNamara estimated that ABMs might reduce American losses from between six and twelve million to two million, or even none at all. They also would be useful in case a few missiles were launched by accident. However, since the nature of Chinese armament was still uncertain, he was reluctant to begin construction on such a system right away. This was not a position he could maintain for long; by 1966, the Air Force, concerned by the Soviet ABM system and encouraged by the successful firing of a Sprint missile, dropped its long-standing opposition to missile defense and joined the other services in advocating deployment.

Not only were the united joint chiefs in favor of action, but support for the idea was also stronger than ever in Congress, and leading Pentagon research administrators like Brown in agreement, too. By November, the Soviets had completed their installation of Galosh missiles around Moscow, leaving McNamara with few viable options (Yanarella 1977: 113-119).

In the meantime, the continental air defense system began to deteriorate. In 1964, the Air Force began to cannibalize the BOMARC missiles at its Niagara Falls base, expending them for training exercises. A year later, the Army began to close Nike-Hercules sites. Preoccupied by ICBMs and strapped by the growing costs of the Vietnam War, neither service regarded its anti-aircraft missiles as worth the bother. Except for a few bases in Florida, all the Army installations were gone by 1971 and the Air Force ones by 1972. Nobody saw anything wrong with these missiles: they just cost too much, and the money was needed for other things. The Air Force assigned responsibility for air defense to the Air National Guard, which continued to fly interceptors until the middle 1980s, the sole defense against a Soviet Bomber force now operating in the shadow of the red missiles (Bright 156-160; Bruce-Briggs 337-339).

The financial burden of the Vietnam War also weighed on the idea of ABMs. However, the Republican Party was threatening to make ABM deployment a key issue in the 1968 elections, and Johnson knew that many Democrats also would be impatient at any challenge to American strategic dominance. To soothe domestic critics, he tried to negotiate an agreement with the Soviets to restrict any further deployment of ballistic missile defenses. However, this attempt ran up against the long-standing Soviet faith in defensive weapons (Yanarella 1977: 182-183). In June 1967, when Johnson and McNamara made their case to Soviet Premier Aleksi Kosygin at their Glassboro, NJ, summit meeting, he was unwilling to continue the discussion. Although Soviet thinking about ABMs was in flux at that time, Kosygin did not give the Johnson Administration enough encouragement to forestall an American ABM effort (Garthoff 295-300).

Bowing to the inevitable, McNamara went to San Francisco in September, where he gave a speech, "The Dynamics of Nuclear Strategy," announcing that the U.S. would deploy a light ABM system to be known as Sentinel. He had not changed his thinking about ABMs. In fact, he discounted the value of Soviet ABMs while insisting that it would cost \$40 billion and accomplish nothing to construct a heavy shield against Soviet ICBMs. However, he expressed concern about political instability in China and the Chinese govern-

ment's hostility toward the U.S., and noted that, by the early 1970s, the Chinese would probably have ICBMs. He thought that, for \$5 billion, one could construct a light missile defense that would protect American cities from Chinese attack and perhaps offer some protection for American Minuteman missiles from Soviet forces. In conclusion, McNamara insisted again that it would be folly to try to expand such a system to fend off the Soviets.

With McNamara's blessing, Sentinel passed through Congress without serious opposition. McNamara might give lip service to the Chinese threat, but many senators and representatives still had their eyes on the Soviet Union. However, at this point, the Johnson Administration encountered an unexpected surprise. When Army engineers began to acquire land and begin test drilling in the suburbs of Seattle, Chicago and Boston, the inhabitants suddenly erupted in protest. There had been no previous sign of active popular opposition to missile defense. Public opinion had seemed indifferent, or, if anything, mildly favorable toward the idea. Complaints by scientists about possible technical weaknesses in Sentinel or its capacity to spark a new round of nuclear missile construction made little impact on the average voter. Nevertheless, the arrival of soldiers and construction equipment at the very outskirts of large cities sent a shockwave through the population. Now the possibility of accidents involving nuclear weapons and, perhaps the sense of what it meant to be a target in vast game of threat and counter threat, came home to people. The mounting failure of the Vietnam War already had sensitized them to arbitrary decisions by the military and the government. This expensive and seemingly dangerous project right on their own doorsteps drove them to active opposition (Yanarella 1977: 146-147).

The frustrations of the now unpopular Vietnam War soon brought the Johnson Administration to an inglorious end. McNamara resigned his office, and not long afterward Johnson announced that he would not run for reelection. The Republican Richard Nixon won the 1968 election and appointed the former Republican Congressman Melvin Laird as secretary of defense. Congressional critics of Sentinel, led by Albert Gore (D-TN), launched a committee hearing in an effort to persuade the new administration to give up on the project. But again, the testimony of scientific opponents made little impression on the Nixon Administration. The Administration introduced experts of their own who raised questions about the assumptions that anti-ABM scientists were making. In March, the new President responded to critics of the Sentinel system; he explained that defending the country against a full-scale Soviet attack was

technically beyond the capacity of the system designers. Therefore, he proposed a new plan called "Safeguard," which primarily was oriented toward protecting American missiles (Yanarella 1977: 143-145).

Ever since the development of the MIRV, some American defense experts had worried about what might happen when the Soviets got their own MIRVs and placed them atop Soviet rockets, perhaps aboard the big new SS-9s that they had been deploying. If Soviet experts also could improve the accuracy of their warheads, they might be able to knock out an American Minuteman missile with a single warhead. As a result, they could destroy much of the Minuteman fleet in a first strike before American weapons could be fired. Although the U.S. still would retain bombers and Polaris missiles at sea, such a capability would cripple the American deterrent force and substantially limit American military and diplomatic leverage. The Safeguard plan was designed to counteract such a threat by preventing the Soviets from making an effective strike against our ground-based missiles. Safeguard had a very great advantage over Sentinel in that it did not have to work perfectly in order to be effective. Defending a city was an all-or-nothing proposition, for if even one enemy missile got through, the city would be gone. A defensive system that saved half the cities it defended would be a tragic failure; however, a defensive system that saved half of the Minuteman missiles it was protecting would be a towering success. Without the hope of destroying the American deterrent, the Soviets would not dare to strike American cities at all, thus making defensive forces around cities much less urgent anyway (Kaplan 350-351).

Despite the advantages of the Safeguard system, scientific critics of ABM were not appeased. George Rathjens, a former defense scientist now teaching political science at MIT, reacted to the President's plan in the April 1969 edition of *Scientific American*. By now, MIRVs were public knowledge, and opponents of missile defense could argue that they would render ABMs ineffective. Rathjens made use of this argument, too, but his main concern was the consequences that ABMs might have for the arms race. He reaffirmed McNamara's argument that defensive missiles would elicit an "action-reaction" effect whereby the Soviets would simply match our defensive weapons with less expensive offensive weapons of their own. Indeed, he even borrowed the title of McNamara's San Francisco speech for his own article, "The Dynamics of the Arms Race." Rathjens also suggested that the Soviets might well overreact to an American ABM deployment since they could not know in advance how far it might proceed. More ominously, he argued that a power

equipped with both MIRVs and ABMs might well be tempted to conduct a first strike since the damaged retaliatory forces that survived the first strike could probably be fended off by its defense. "In short, if one or both of the two superpowers had such capabilities, the world would be a much more unstable place than it is now" (21). Rathjens conceded that, at some point, it might be necessary for the U.S. to take steps to shield its offensive weapons from Soviet MIRV attack. For the moment, though, he appeared to believe that the Polaris submarines offered enough deterrent force to discourage any Soviet attack (22-23). He was not optimistic that negotiations between the two powers could achieve major reductions in offensive forces, but he did hope for an agreement that would limit such weapons to their present levels (25).

Rathjens was able to repeat much of his argument in a collection of articles on ABM edited by Abram Chayes and Wiesner. Many of the contributions were rather short, but the book was introduced by a lengthy overview authored by Chayes, Wiesner, Rathjens and Steven Weinberg. Chayes taught at Harvard Law School. The other three were associated with MIT. This article, too, raised questions about the capacity of ABMs to stop offensive missiles. The authors thought that the Spartan and Sprint missiles were better adapted for urban defense than for the protection of missile bases; nevertheless, they were above all worried that ABMs, regardless of their design, might destabilize the arms race. Even though the authors had little confidence in the performance of defensive weapons, they suspected that Soviet military planners might take them much more seriously, much as American planners had adopted MIRVs in response to the Soviet Golash system. The proposed Safeguard system was intended to deploy ten times as many missiles as the current Golash system. In addition to protecting missile bases, it offered at least some protection to the entire nation and could easily be expanded to provide more. Since the U.S. already had announced its intentions to deploy MIRVs on the new Minuteman III and Poseidon missiles, the authors thought the addition of ABMs would alarm the Soviets. The best hope we had for stabilizing the arms race would be a treaty agreement with the Soviets, yet ABM construction could interfere with any American effort to negotiate such an agreement (51-57; See also Enthoven & Smith 184-194).

The new Nixon Administration was keenly interested in negotiating an arms control agreement, yet they saw the issue differently from the critical scientists. Recognizing that missile defense lacked popular support, they were ready to concede the issue. They insisted, though, that Congress go ahead and

pass the bill because they needed a successful program as a bargaining chip for negotiating with the Soviets. After all, the Soviets were not likely to give up defensive weapons that they had already installed at great expense unless the U.S. was prepared to make an equivalent investment. Congress reluctantly complied—though only by the narrowest of margins. The Administration's tenacity paid off when the Soviets agreed to a treaty limiting the installation of ABMs. Initially each side was allowed two ABM sites, one defending its capital and one defending a missile base. Within two years, the Soviets changed their minds, and the treaty was modified to reduce the number of sites to one on each side with the Soviets retaining their site defending Moscow and the Americans completing their site at the missile base at Grand Forks, ND. The site at Grand Forks operated for only a few months before the Army decided to shut it down, and Congress concurred. It already had done its job. Aside from the outdated weapons posted around Moscow, defensive nuclear missiles were gone.

After extensive debate, Americans finally rejected ABMs, even to the point of granting the Soviets a few weapons around their capital after the ABM treaty was signed. In doing so, leading opponents expressed skepticism not just about the effectiveness of defensive weapons, but also about weapons deployment and arms races in general. This mistrust of arms races had a history going back to World War I and the isolationist movement of the 1930s; nevertheless, before the idea of an arms race could be made meaningful for Cold War Americans, somebody had to make it fit people's expectations. Above all, it had to be stripped of its conspiratorial overtones and given a more impersonal, technocratic look. When McNamara first resisted Congressional demands for defensive missiles, he often employed arguments first made by Air Force generals about the weakness of defensive weapons. In its mature form, the claim that defensive weapons would lead to an arms race also was crafted by an Air Force general, but it had broad appeal to civilian arms experts and McNamara, too. When scientists like York, Wiesner and Rathjens followed his lead, they endorsed his policy for a generation of Americans who were perfectly happy with American corporate capitalism, but were beginning to get anxious about nuclear weapons technology.

Neither model of the arms race provided a satisfactory interpretation for the way the market for arms actually worked: such schemas presumed a neutral worldview in which people worked out their fates without consideration for events going on around them. However, by the late 1960s, Congress and

the public had more on their minds than an abstract theory of the arms race. The expense and frustration of the Vietnam War weighed heavily against the ABM just as it had against the Nike-Hercules. Nobody conducted a public campaign against the Nike-Hercules; it just lost support while people were worrying about other things. Like the Nike-Hercules, the ABM looked like a budget problem. Unlike the Nike-Hercules, ABM also looked big enough to provoke something. With the Vietnam War going badly for the U.S., people chose to throttle down the nuclear arms race. Technological weaknesses may not have doomed the ABM, but the system did fuel weapons competition at a time when most people were losing confidence in weapons. The more it rained in Southeast Asia, the more North Dakota looked like a quagmire, too.

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Two Sides of Snow

BY DEBORAH BROWN

The day of the reading was the first time she had left the baby. They needed the money, and she reluctantly called a sitter. The baby, so long in coming and so definite in his wants and dislikes, was comfortable but she feared only with her. Everywhere she went, even in the apartment, she carried him in a Mexican rebozo shawl tied against her stomach—imagining if left alone he might disappear or become ill.

It was gray, bitter cold, lightly snowing, the air too harsh for a baby, she realized as she ran up Hancock to Beacon and then two blocks south past the State House. She and the baby's father, a classical guitarist, were presenting a Christmas program at the Women's City Club and he had run ahead to make sure there was a podium. The rushing and anticipation of the exact timing of verse and music made her nervous. She had barely rehearsed in between feedings, even though she knew the poems not quite by heart but as ideas deep inside her.

It was the first time in seven months she had been alone. She stopped before the stoop in front of the club, struck by the orange brick, rounded houses,

side by side, and the descending brick sidewalks, the colored lights scalloping the empty branches on the Common, familiar landmarks that now looked foreign, though she couldn't see what had changed. It might have been the snow gathering speed and covering the edges of everything.

The program flew by; they were informal presenters, almost street people, with esoteric material—Corelli, Byrd, Villa-Lobos, T.S. Eliot, Langston Hughes, Millay and Cummings—all visions of Christmas, all unfamiliar, the audience said later. One woman asked to examine the texts and scores. Perhaps it was their laid-back, unscholarly manner that made the woman suspicious.

The reader smiled and said a much-wanted baby is an inspiration to almost everyone. Another woman dressed in purple, her gloved hand shaking, took her hand and thanked her for the words.

She wondered if she should call to see if the baby was content before hurrying home. She had been gone only a little over an hour. Surprisingly, she decided not to call as she wanted to take a little more time—to remember the city she had known so long and intimately before the baby was born. The baby's father had left for his everyday job.

As she came downstairs, a cluster of businessmen who met monthly on the floor above the reading stood at the front door saying good-byes, buttoning coats and after several handshakes, putting on gloves before they opened the door. She squeezed in the middle of them and stepped carefully down the frosted granite stoop. The snow had laid a blanket even on the trees, the lights now no brighter than teardrops.

She headed down Beacon when a man's voice behind her called out.

"Young lady, where are you going?"

"I'm going home," she said, turning around.

He was a tall, older man, maybe in his 80s, in a dark cashmere coat, half smiling at her, pulling his hands in and out of the side pockets of his coat as if looking for a handkerchief or something he might need. She had seen him in the circle of men at the club and now recognized his face as the senator whose steady patrician voice had spoken for New England for many years.

"I am disoriented and not sure where I am," he said as if this wasn't unusual. "Can I walk with you? I want to go to Mount Vernon Street."

"Yes. Please. I'm going that way."

"Thank you," he said. He took her by the elbow and guided her across the side street. She turned slowly up the next street, the steep one leading to Mount Vernon, and his hand returned to her elbow. The snow was swirling at

their feet and the parked cars had become uniform white lumps.

She didn't talk about the weather, ask which block on Mount Vernon; she didn't push to exchange names, to applaud his service. She didn't tell him about the baby she had never thought she could have, or ask if he felt less at odds now with where he was, or if someone was waiting for him. She didn't mention that earlier she also had felt disoriented.

Like the snow, they moved along comfortably in silence, purposely, as if rehearsed, as if embraced by familiarity, to the top of the hill.

Settlement

BY JASON WANDREI

Robert wasn't used to having someone speak for him, and so he sat nervously, clenching his teeth. Don, his lawyer, argued the case as best he could, but Robert could tell by the grin spreading on the face of the untuous, acne-scarred plaintiff, that his representative was getting bested.

For a split second, he'd considered firing Don, trying to settle the affair on his own. He didn't know the first thing about procedures and whatnot, and Don had been a friend of the family for years, but Robert couldn't afford to lose the case. He sat back and tried to relax his jaw, to appear calm.

"You know my client is under no such obligation to compensate anyone for anything," Don pointed out.

Across the desk, the opposing lawyer confidently reached into his attaché case and produced one of the hundreds of reward fliers Robert had posted around town, the black and white photo of a smiling Elizabeth Banker—Robert's 16-year-old daughter—centered below the heading "\$145,000 Reward." The lawyer held it up. "You know better. I have a binding contract right here stating that the printed sum is owed to anyone who finds the missing girl or comes forth with information leading to her whereabouts. My client found the girl, and as such he deserves to be compensated."

"Your client may have found Elizabeth Banker," argued Don, "and my client is eternally grateful, I'm sure. But even you have to agree, Gene, there's no signature on that piece of paper. No specific agreement drawn up between my client and yours."

"But there is," said Gene. "This is a specific agreement drawn up between Mr. Banker and anyone who finds his daughter." He motioned to the flier. "This piece of paper represents a contract, a contract that your client is unlawfully refusing to honor."

"Well, if you consider every advertisement to be a legally binding contract, then I'm assuming your next client is someone whose body spray didn't get them in bed with a hot teenage girl. Or a smoker that doesn't look so hot in her bikini. My client advertised the reward in order to garner more support for his search efforts, because he was, at the time, under the assumption that his daughter had been abducted. This turned out not to be the case. Besides, it's not like your client suited up commando style and single-handedly rescued her from evil-doers. He simply happened to be doing his job for the first time that week. For that feat, he deserves exactly what he's received, his regular paycheck and Mr. Banker's gratitude."

Gene said, "Not according to this flier." His expression turned earnest. "Don, you know you can't win this."

Robert glared at Ernie, the smug plaintiff in the spaghetti-stained blazer next to Gene, arms crossed at his chest. Robert wanted to know what drove a man like that, how he could put Robert's family through that kind of strain after the horror they'd already endured. He tugged at his collar, his jaw muscles flaring his cheeks.

"I don't think you understand, Gene," Don warned. He then met Ernie's eyes. "If this does see the inside of a courtroom your client will lose more than the case. The press will eat up a story about a man so shallow that he slapped a lawsuit on a local business owner who only days ago believed his daughter had been abducted, for reward money that he feels he earned by doing nothing more than emptying garbage."

Gene entreated, "Likewise, I doubt you'd like Mr. Banker to endure the same scrutiny, considering his daughter caused a citywide panic because she was too high to move for a week. People took days off of work, husbands, wives combed the city for her, hoped that if they looked hard enough they'd find the poor innocent victim, only to discover that they were searching for a drug fiend. Then, after they hear that her own father either feels she is un-

worthy of the price he set for her safe return, he'll be seen as a fraud as well."

"Do you have a daughter?!" Robert stood up and wove a finger in Gene's face. "Do you have any family at all, you fucking shyster?"

Don took him by the shoulders, eased him back into his chair and chided him with his eyes. "Let's all calm down now. Nothing is going to get resolved if we're at each other's throats."

"I agree," said Gene, smiling.

Robert stewed in his chair, and started to grind his teeth. Though Don had insisted he remain quiet and appear confident throughout the proceedings, he surely couldn't have been expected to endure underhanded assaults on his family's character and not retaliate.

Don sat back down and smoothed out his tie. "So, now then, we've established that this will be a PR disaster for all parties involved."

Gene nodded, "My client is prepared."

"I'm sure he is, right now anyway. But this could drag on for months. Is he prepared for the long haul, when they start digging up his elementary school report cards and behavioral evaluations, how he made little Britney cry by pulling her ponytail then dropped out before reaching high school?"

Ernie didn't speak, smile, or move. His bristled, saggy jowls clung lifelessly to his polyester shirt.

"My client is not intimidated," answered Gene.

Don tried, "Well then, is his wallet intimidated? Let's face it Gene, you're not going to work pro bono, and this one is going to have a pretty big price tag."

"I've agreed to suspend my compensation until after the proceedings, considering the strength of the case."

"We've already established that there is no case. You'll get nothing."

"We'll get the full 145, plus fees, if we drag this to court." Don shook his head, but before he could voice further protest Gene came forward with, "Which is why I suggested we meet here in your office rather than taking it that far. My client is willing to settle for an even \$100,000 right here and now."

"What?" Don asked incredulously.

"Yeah, what?" added Robert.

Don eyed him sternly. Robert leaned back in his chair and ground his teeth hard enough to produce an audible squeaking sound.

Don asked, "Have you not been listening, Gene? Why would I agree to those terms when you'll end up with nothing in the end? You have no case."

"We both know there is a case, Don." Gene slid the flier across the desk.

"We'll see about that." Don plucked the flier from his desk, crumbled it up, and threw it in the waste basket.

Gene sighed and picked up his attaché case. As he ushered a slow-moving Ernie out, Robert seethed, his teeth all but smoking.

• • •

"We have to settle, Robert," admitted Don when the office had cleared.

"I thought you said that lowlife didn't have a case?"

"It doesn't matter what I said. The advertisement defense I presented is thin at best, stupid at worst." He picked his head up and said, "You realize none of this would've happened had you been more calm instead of going off half-cocked and posting the huge reward. Those things have to have airtight wording so incidents like this don't happen, and you left it so open-ended I'm surprised there isn't a line of people from that same apartment complex claiming that they smelled your daughter and told Ernie to check in the dumpster, and now they want to be compensated because scent constitutes secondhand information."

"I don't believe this." Robert got up and paced in front of Don's desk. "So there's no way to win? Even if we explain to the jury that the \$145,000 was intended to show I was willing to give up my house and my business to compensate someone who'd bring my daughter back safely?"

"None of that matters. You could've put a billion dollar reward on that poster for any reason you could think of, and Ernie would still have a right to claim it."

Robert clamped his jaw. He wanted to know, "What kind of lawyer are you? How could you let them march in here and walk over us like that without a sensible counter argument prepared?"

"It's not easy when the law's not on my side. And your outburst didn't help any either."

"Could you have sat there quietly if he was talking that way about your daughter?"

"I don't know. But I do know I might've been able to work something out if you would've just settled down and sat there. I told you to sit there and look confident."

Robert opened the office door. "I don't know why I still deal with you. I should've handled this myself from the beginning."

Don shouted, "Don't do anything rash, Robert! Maybe we can still work a better deal?"

Robert slammed the door behind him, then stuck a finger in his mouth and rubbed his aching molars.

• • •

"We're going to lose everything," said Laura, convinced. With her manicured, red-painted fingernails, she pushed a series of buttons on the old clunker of a cash register and told the elderly customer, "That'll be \$10.97." Robert gritted his teeth and bagged the woman's cans of tuna and grapefruit.

Before going for her wallet, the old woman looked quizzical and asked, "Isn't the fruit on sale?"

"That was last week," Laura explained.

The woman drew the sales flier from her purse and flipped through it. "Oh yes. I see it here now. Well, I need fruit anyway." She handed over the money, and Robert was grateful that she didn't argue about the sale, grateful that she didn't push to get something she didn't deserve.

He handed the woman her bag and waited until she walked away. "Stop worrying, Laura," he urged his wife. "I'm going to fix this."

"How can you possibly fix this now? We have to settle or we'll lose everything." She turned her round cheek away from Robert. "I told you Beth'd turn up, that the reward was a bad idea."

Because nobody lingered in any of the five aisles of the Crossroads Grocery, Robert could've raised his voice as loud as he wished. Though, instead, he opted to growl through his teeth, "Oh yes, your faith was unwavering while you cried away the days and nights, shouting to the heavens that you'd give anything to have Beth back. You fought me so hard with that, 'I don't know, Robert,' when I posed offering a reward. You're right, this is all *my* fault. No customers, a lawsuit, our daughter on drugs, all of it."

Laura closed her plump hands into fists, then released them. Robert remembered how slender and bony those fingers were when they'd met, because the means to produce three square meals a day had eluded her parents. But he had worked seven days a week to change that. He made sure that she was given the best of everything, and he couldn't believe that his years of diligence and faithfulness hadn't exempted him from remarks as ungrateful as, "Well if you would've looked harder, took more time out of this place, you may have found her yourself. If you would've just . . . She'll never get to college. Not now. Not after all of this."

He took off his apron, balled it up, and left it next to the paper bags. "Well, I'm not going to give up. I said I'd fix this, and I'll fix it. We're not going to settle."

He stormed away, past the meat counter he had installed three years ago, into the office he'd constructed with a loan he still had five years' worth of payments on, and he paced back and forth next to his desk, chomping air and plotting his next move, his teeth clicking loudly.

. . .

"Crack," Elizabeth told Aaron, the substance abuse counselor. "I wuth thmoking crack, and I was . . . am an addict."

"It's a step in the right direction that you can admit it," Aaron reassured her.

Robert kept his mouth tightly shut. His daughter had emaciated to the point of fragility, her collarbones jutting out sharply, and it wasn't easy to take her in from across the circle of chairs.

It wasn't easy to listen to her voice, either. He used to love the sound of her severely feminine tone, but after she'd come home without her front teeth, he loathed the lisp the space created. It served as a constant reminder of his failure to procure the better life he sought for her.

But he was sure to interject to Aaron, "By the way, just so you know, we're going to get her teeth fixed. We're not going to let her go on like that." He ran his tongue across his front teeth, smooth and complete.

"OK." Aaron wrote something into his notepad then turned to his right. "Now Mrs. Banker, can you give me some background information. How were things at home leading up to this?"

"To my knowledge things were fine." Laura kept her manicured hands folded and resting on her jean skirt.

"OK." Aaron scratched his graying beard, then asked, "Can you expand on that? Can you tell me what things were like when Elizabeth was young?"

Laura turned to her right, patted her daughter's hand and explained, "Beth was wonderful growing up. She and I were home together a lot in the beginning, when Robert bought the building. There was the refurbishing of the apartment, Robert constantly expanding the store downstairs. There was so much going on, but she handled it well. She was happy, or at least seemed it. We all were."

"Of course we were happy," Robert said. "Why wouldn't we be?" He looked at his daughter. "Right?"

"Of corth, Daddy," she said quickly. "I had the betht parents growing up."

"OK," Aaron said, "so when did things change?"

Robert worked his teeth back and forth, rubbing the bottom row lightly against the top as his daughter spoke, "What do you mean?"

"At what point did the good times end? At what point did you feel you needed to turn to drugs?"

Robert told him, "Hold on a minute. My daughter didn't 'turn to drugs.' Some asshole pusher out there took advantage of her naivety, her innocence, and got her hooked on that junk."

"I'd like Elizabeth to answer, please."

Elizabeth shifted her gaunt body to cross one leg over the other, her jeans hanging limply from her calves and thighs. "Well . . . I don't know."

Aaron promised her, "You're not going to get into trouble. The sooner we confront the problem the sooner we can go about dealing with it." He looked to Robert and Laura. "Nobody is going to get upset, are they?"

Robert answered, "No," for both of them.

Elizabeth flipped her raven-black hair out of her face. "Well . . . I geth it wuth when I got into high school."

"What happened in high school?" Aaron prompted, and Robert added, "Yeah, what happened? Were people picking on you? Did a boy touch you?"

"No, no," she denied. "Nothing like that. It wuth . . ."

"Go ahead," Aaron encouraged.

"I geth it wuth all the work. The homework, the reading. The college prep corthes had so much to them that I couldn't keep up. I failed another tetht and I wanted to quit then and there." She looked at Robert. "And I'm thorry, Daddy, but you weren't around much to help out. But I knew I had to keep trying, becuth if I didn't . . ."

Laura immediately pointed at Robert. "You see, I told you. You pushed her too hard! I told you she didn't want to go to college, but you wouldn't let her take the remedial courses! Jesus!" She threw her arms histrionically around Elizabeth.

Robert stood up, "This isn't my fault, Laura! I've spent my entire life busting my ass to make something of that market. Adding the meat counter, the office, the entire frozen food department. I haven't had a day's rest in years. Do you think I want that for her? No! I want her to do something better than stocking groceries and ringing up sales. So sue me! But I didn't make her smoke crack."

"None of that matters now anyway. We're going to be out on the street thanks to your reward posters anyway."

"Everyone settle down," Aaron prompted too calmly for the situation.

Robert paced the office from bookcase to bookcase, biting down hard enough to send sharp pains shooting through his jaw. He only glanced at

Elizabeth sporadically between her sobs, avoiding as best he could looking at the hole in her teeth.

• • •

Outside, the sun was setting quickly, and the warm air faded with the daylight. Robert gave his daughter a kiss on the cheek. She was still shaken up from the therapy session, and when he touched her shoulders he felt her trembling hard enough to rattle her bones. "Don't worry, honey. None of this is your fault, and I'm going to fix everything right now." He told Laura, "Take her home. I'll be along in a few hours."

"Haven't you done enough? You're going to make this worse, Robert. Just get in the car. How much more do you think your daughter can take?"

He walked away in the midst of Laura's protests, and heard one last, "Where is this going to end?" before she pulled away. Until then, she had been the perfect wife; he wouldn't have settled for anything less. From the start of their courtship, she had supported him in his every endeavor, constantly assured him that everything would be all right even when times were bleak. Had the lawsuit been slapped on him ten years ago, she would have been right behind him, fighting until the end. But times were different. They had only lost Elizabeth for a week, but facing the possibility that she would never come home again had taken its emotional toll on Laura and changed her, possibly forever. People can only take so much before they crack, Robert understood, and Laura may have reached her breaking point. So, no matter how many times she cursed him with blame, he couldn't quit on her, because, though she wouldn't admit as much, she desperately needed someone to help nudge her toward recovery.

And Robert was that someone, because he had not yet found his breaking point, even after all that had happened. It would take more than Ernie to break him down, make him quit. He'd make Ernie see.

• • •

Robert came to the dilapidated apartment complex. The paint peeled from the window casings, exposing the wood beneath, and the rest of the olive exterior had weathered much the same. Pieces of loose shingles clogged the rain gutters, and the screen doors had holes big enough to accommodate flying insects of every size. Robert was sure nobody had done any maintenance for years, and he was shocked to see a realtor's sign rather than a condemnation order swinging on the brown, gnarled patch of grass in front of the complex.

The cool breeze gave him a chill, and goose bumps formed on his arms. He wanted to move things along quickly in order to get back to the warmth of his home and family. But before knocking on Ernie's door, he strayed from the sidewalk into the alleyway, down to the dumpster where Elizabeth resided for an entire week. He still hadn't seen it, and even then he was driven by curiosity rather than desire. Somewhere near its deep green sides, its rusted edges, or its cavernous innards, two pearl white pieces of his daughter had been lost.

He raised the dumpster's lid. Even devoid of garbage the smell made him cringe, but it was the thought of his little girl amongst that stench of decomposition, lighting the dank darkness with a glowing glass pipe full of junk that completely disgusted him. He scanned the black hole for her teeth. They weren't there. As he let the lid down he wasn't sure he wanted to know where they were. What he did want to know was how wanting the best for his daughter had brought out her worst, and understanding passed beyond his rationale. Though, remedying the problem hadn't. He'd already cast off Aaron's closing notions of easing things up over the next few weeks, and he would have kept his daughter from attending further meetings had they not been court ordered. The only way to help Elizabeth was to stop coddling her. Neither Robert nor Laura had ever even raised their voice at her before, because they had believed keeping their tempers made them better parents. But Robert had seen firsthand that his leniency had allowed his daughter to grow into adolescence without a backbone. He needed to strengthen her resolve, so when life got tough she wouldn't once again break down instead of doing whatever it took to persevere.

The rattling thud of a garbage bag hitting the sidewalk startled Robert. At the alley's dark entrance stood a shirtless Ernie, his hairy shoulders matted down in two places where his suspenders' straps cut through. "Gene said you might come here. He said to stay away from you."

Robert had never heard Ernie talk before. His words came out slurred, as if he'd been drinking, but as Robert drew closer he could smell no alcohol. "I know you've been advised not to talk to me, Ernie. But I had to talk to you, man to man."

Ernie didn't move, or say anything.

"Now, I know you're probably not doing as well as you could be, but at least you have a steady income with the rent money, and when the place finally sells you'll be able to move somewhere even better."

"Save the smoke blowin' for the lawyers." Ernie spat on the sidewalk. "I'll be lucky to get twenty grand for this dump."

Robert saw that the slur hadn't come from booze, but because there was not one tooth behind Ernie's lips. He sucked his own lips tight to his teeth before continuing, "Still, you can do a lot with that kind of money, go wherever you want to go, make a fresh start somewhere else."

Ernie spat again. "You think I wanna start again? I should be retirin' right now, for Christ's sake, and twenty grand ain't going to get me there. Twenty grand ain't going to get me nothin'. No house. No car. Nothin'."

Robert bit down and thought he felt a front tooth loosen. "Well, you have to do something, Ernie. You'll have no other income. Twenty grand is more than some people make in a year. It'll keep you on your feet for a while until you find another job, one you like."

"I've worked my whole life taking care of this craphole. My grandfather owned it. My father owned it. Now I own it. This is all I know. But I want nuthin' to do with it anymore. Haven't for a long time. I'm tired of painting. Tired of fixing faucets. Tired of tracking people down who skip on their rent. Tired of taking out the garbage. I'm done with it."

Robert empathized, "So you know what it's like to live where you work, and how much it takes to keep the place going."

"Too much."

"Well I live where I work, too. You probably know that already. I've worked every single day since I bought the place. I know exactly what you're feeling. You get tired of being unappreciated after a while. I know."

Ernie spat.

Robert went on as calmly as he could. "But you don't have to give up. You can reinvigorate yourself, make your complex into the best in town, up the rent, live like a king. All you need is a few cans of paint, some shingles, the place will look great. I'll even help out if you need it."

Ernie asked, "What did you come here for?"

Robert leveled with him. "I came here to admit that the \$145,000 is the total worth of my building right now. The market and my apartment above put together. If you take it, you'll wipe me out. I want to know how you can go through with something like that, Ernie, because it's going to kill my family. I mean, what if you had a family? What if you found a special lady and you two decided to have children, and then you built your apartments up, expanded, constantly tried to make the most out of them, because you wanted the best for your wife and kid? Then, one day, some guy swooped in out of nowhere and threatened to take all of it away over some fine print?"

Ernie wiped his nose with the back of his hand then rubbed it on his jeans. "Not my problem. I found your girl. That's all the poster said I had to do."

"And I thank you for that, but what good is it if what you're doing now tears us apart?"

"You offered the reward."

"But you didn't do anything! You didn't even leave your house to look for her."

"Sometimes things come easy, like hitting the lotto."

"Please," Robert grumbled through his clamped teeth. "Please just let this go."

Ernie stayed quiet.

Robert was getting annoyed. "Do you really think you're going to get anything out of this anyway? After Gene socks you with legal fees, and then taxes are taken out, you'll be lucky to end up with enough money to buy a T-shirt. It's pointless."

Ernie looked pensive for a moment. Then, for the first time, he drew his lips back into a dark, toothless grin. "How's about we cut out the middle men then? I'll sign whatever papers you want right here and now, make a contract right here between us, for . . . let's say fifty."

"Fifty . . . thousand?"

Ernie spat. "That's less than half. More than I'll get after all the bull with the lawyers, but it lets you off easy."

"Easy?!" Robert feigned outrage, and paced from wall to wall in the alleyway. "Easy" was an understatement. Ernie's offer was a steal. It'd be tight, but Robert could come up with the money, have Don draw up the paperwork this time, make it airtight, and he'd end up getting off the hook for pennies compared to the original whopping sum. Eventually things would turn around at the market, and he'd be able to make a small profit while paying back the loan. The pressure to settle bit down on him with incomparable force, and all he had to do was acquiesce, let it grind away his implacable ambition so he could put an end to the case and move forward.

But the way to success was never easy, and there was no settling involved. If he threw away \$50,000 just to reward a filthy lowlife who'd lost his will to work, any repairs, preventive maintenance, or additions to the market would have to wait. Laura could no longer get her nails done. He'd no longer be able to pay for his daughter's rehab, her college education, or to get her teeth fixed. His entire life would devolve instead of evolve, so, "No," he told Ernie. "No way in Hell."

"Whaddaya mean?"

"You think I'm going to crack that easily? Just up and settle?"

Ernie said, reluctantly, "Well the lowest I can go is forty-five."

Robert only half listened to the offer as he poked away at the tooth he thought had loosened. As he did, he spotted a speck of white on the pavement, in the dark shadows beside the dumpster. He trotted over, knelt down and picked it up, but, to his disappointment, it was only a chewed piece of bubblegum. He tossed it to the side and told himself that soon his daughter would have new teeth, better ones that would never rot away or be knocked out. They'd be stronger than his own. The tooth he had poked didn't give at all when he pushed it again.

"I'm through negotiating," Robert said. He brushed shoulders with Ernie on his way out of the alleyway, and was instantly sickened by the coarse hairs rubbing on his shirtsleeve.

"Have it your way, Banker," Ernie taunted. "You'll see what happens." Robert remained silent, and paused only long enough to decipher the phone number scrawled on the realtor's sign before heading home.

• • •

Two weeks later, after Robert had closed the market for the night and gone upstairs for dinner, the phone rang. Robert picked it up, and Don asked, "How's Elizabeth?"

"She's coming along."

Elizabeth was at the kitchen table examining her trigonometry text, thoroughly working each example through, the way her assigned tutor had shown. She was back in school full-time, with the same classes, the same workload, but she hadn't yet failed another test, not even a random one her probation officer had administered to check for illegal substances.

Laura stirred a pot of spaghetti sauce at the stove, her nails perfect, and she glanced at Robert every now and then as he continued his conversation.

"So what's going on?"

"Well, I have news." Don didn't sound confident, and Robert rubbed his bottom row of teeth against the ones on top. "The realtor informed me today that the building is so beyond repair that they're willing to settle for eight grand."

"That's great! This is great news." Laura glanced at him, and he relaxed his jaw. "So why do you sound like there's a problem?"

"Because Gene called me, too. He said that your games aren't going to work, and if you go through with the purchase of Ernie's building and do indeed evict him, Gene will personally kick in whatever money Ernie needs to stay in whatever shitty motel he has to until the reward case is settled."

Robert went quiet, and Laura asked, "What'd you do now?"

Elizabeth picked her head up from her work. "Ith everything OK, Dad?" Robert was transfixed by the black space between her teeth, which hadn't yet been filled. Aaron had explained at their last meeting that her mental state would be frail for some time yet, and the way her voice cracked when she posed the question made it clear to Robert that one wrong word could trigger another breakdown, spread the black space until it totally engulfed her again, the only light the glow of a dingy glass pipe.

But Robert couldn't stop himself. He pulled his lips back into a sneer, his perfect teeth knitted solidly together. He told his daughter, "It's time you toughened up! Stop worrying about what's going on and get back to your homework, because things are fine." Then he turned to Laura. "And you shut up! I've had enough of your yapping! Things are going to be fine. I can fix this." He asked Don, "How much?"

"For what?"

"Gene's house."

"Robert what are you . . ."

Laura asked again, "What'd you do now?" the ladle at her side, dripping red sauce on the tiles. Elizabeth broke into long wailing sobs. And Robert kept his teeth tight together as he repeatedly shouted into the phone, "How much?! How much?!"

Poetry

A Final Note on Monsters

BY JILL GILBRETH

Barclay wasn't at all surprised when the ship landed on his roof and attached itself like a parasite, its dull engine droning. Or later, when the crew called out to him from the basement, demanding Coca-Colas and his assistance with the circuit breakers, their blank faces oblivious to his attempts to communicate. He had expected all of this to happen because he'd been warned ahead of time. Still, it had been a shock to find himself in his own home with the walls ripped open, exposed channels of wires re-routed to the mysterious aircraft that was so hungry to fuel and refuel itself—to *source others* day and night—until the house began to glow even below the ground floor. And he no longer recognized the rooms he'd occupied throughout his adult life and which he was now being ordered to vacate by this Captain who stood, unmoved and unmoving, at his bedroom door. So when Barclay remembered the row of nickels, dimes and quarters he had arranged, heads-down, along the top of the utility box out back, to detect movement in the heavens, he took his pad and pencil from their hiding place and made a final note on monsters: true, he'd anticipated their arrival, true. Even more than that, he had longed to hear his Christian name in their mouths.

After Ezekiel

BY MELANIE MOWINSKI

*A new heart I will give you, and a new spirit I will put within you;
and I will remove from your body the heart of stone and give you a heart of flesh.*

Ezekiel 36:26

Throwing heartstones—

An opening
across thousands of years,
forgets wholeness

birthed from the darkness
picked from the shore
the deepness of the sea, passes

compressed time
heavy in the palm
sparkles with memory

smoothed, churned and tumbled
linking to a distant story

peace comes
in metamorphosis.

Mockingbird

(Mimus polyglottos)

BY MARK D. MILLER, PH.D

I must write
as you sing,
not when you are singing purposefully,
at once wooing a mate
and warning away rivals,
but as you sing for no apparent reason
except that you can,
out of season,
turning somersaults
atop a telephone pole
in the moonlight,
linking snatches of things you have heard
in a long pastiche
at once eerily familiar
yet utterly yours,
whether anyone is listening or not,
but if they are,
seeming to speak to them personally,
resonating with them,
calling to their souls
in a way to make all the difference,
extempore,
winging it,
making it up as you go along
without losing your way
or your confidence,

making it new,
varying tone and timbre
so we listen anew,
now soft and tremulous
as a whisper
in the delicatest ear,
now loud loud loud,
as if knowing what to make
of a diminished thing,
yourself undiminished
and sublime,
singing in innuendo
even when you are gone,
that the dinosaurs that once had dominion here
did not completely vanish from earth,
but came to this.

Full Circle

BY BARRY STERNLIEB

Originally appearing in *The Chariton Review*

Old houses drift
toward the past

repeating themselves,
confusing rooms with words,
words with walls.

They hold the way
to begin again
regardless of decision,

bending in the slow current
of decay like autumn

or women
who have outlived their children.

What nothing new to regret
is to us,
weather is to them,

changes phrased
in the blues of wood.

Through their doors
age enters
a stillness whose heart

makes the sky
look small.
No wonder then,

by keeping time
to our fear of time,

they gather all there is
to know of love.

Friend

BY JEFF McRAE

During the bossa nova craze
we roared like timbales
brushed like water against a trio of bathers

a window wind said *Jobim*
through the window
you opened before leaving

one of us always left behind
a wreckage of acoustic instruments

this darkest day for song
we would say

when the world was a dreamless artichoke
on our lachrymose dinnerware

burned our embouchure
drank dirty martinis
played a guitar in the boudoir
like song and music

Vespid

BY MICHELLE GILLET

It's down. The hornets' nest.
Now first sting of frost on the ground
and we see no threat,
only the hollow where harm lived.
Everything the season housed has flown:
yellow jackets idling low in the grass,
bats fanning the dusk, the hornets
threading close to the roof.
When we were children
we'd leap from our beds,
arms flung wide. In the seconds
before landing, we didn't know fear
resides in gravity or stars fall
into themselves. We imagined rising
over the roofs not like souls
detached from bodies, but as bodies
resisting the world. Light in my hands
when I lifted it from the eave, fervor gone,
no longer wadded in industry, this testament
to vanishings is too fragile to hold.

Golden Orb

BY HANNAH FRIES

Stronger than the tensile strength of steel
and golden-yellow when sun touches them
just so—these spider webs gathered once
by Madagascan fisherman, and thrown
out on the sea, strange glint in the shallows,
to catch a writhing shimmer of fish.

The webmakers, the spiders—regal,
palm-sized, oblong abdomens patterned
and smooth like a beetle's, long legs angled
like a cross in the center of the web.

Imagine the spider-catchers now,
with their bamboo poles, flicking the queen
from her web, and the handlers, all women,
who place each spider in its tiny
harness, twenty-four at a time, and draw,
slowly, from their trembling bodies, yards
of their life's thread. Then wind it on reels—
like the dwarf spinning hay to gold—
to spin the filaments into silken string, to weave

a textile that gleams like a late-afternoon
break in the clouds. From a million
arachnids' undoing, a fabric that lives
in a museum now. And they,
the imprisoned ones, held until emptied
and exhausted, are set free to try again,
in time, their own art, if they have it in them.

Do they creep back to the shadows, recuperate
by the thousands, remember the old
pattern woven through their blood, and set
to it once more: the uncompromising web.
While we examine the shining cloth laid out
like a body in a glass case, the artist waits.

A grasshopper, and then—unlikely catch—a small
bird flies in, all flutter and flash, the weakening
struggle, the wing that quivers and finally
grows still. A glitch in the way of things, a bit
of beauty arrested where by design
it should have flown. Eight legs gingerly
touch the ruffled feathers, regard the onyx eye.

Finals

BY ABBOT CUTLER

In the dream I have an exam
I have to take but there is someone
holding a paper he wants me
to read, and then I have to get dressed
in the right clothes and pass through
endless hallways and drive over
the snowy highway across a bridge
and across the roofs of wrecked cars.

Exhausted early I ask what exam
I am in line for, what journey
in order to arrive on time
and in the right clothes, and how
can I go out into the storm
and drive as I know I have to
over the old wrecks of my life
to finally arrive, to take the test
I have studied my entire life for.
It is the test of sunlight off water,
of seven crows racketing at the edges
of things, the test of the animals
of deep fur, and the eyes of all those
I have loved, the test of going on
and knowing why, of moving my tongue

in the forest of healed over yesterdays
and all the days to come massed
in the ballroom of the city of night.

If only I had known that it was now
I was studying for when it seemed
I was walking backwards into the swamp
of old rules carrying a four poster bed
and a dining room with paintings I hated.
If was the word I used always
and *I don't know* was my answer
to every question asked of my heart,
and finally in my 62nd year I
have arrived at the door to the hall
and when I open it I only hope
that there will be no bluebooks, no sharp
pencils and no grim overseer, but
only the honey of morning and the dance
of forgiveness that my body knows better
than my mind can imagine.

Book Review Essay

Always on Behalf of the Weakest: Giuliana Sgrena's Iraq War Diaries

BY SETH KERSHNER

Books discussed in this essay:

Il Fronte Iraq: "Diario di Una Guerra Permanente," by Giuliana Sgrena. Manifestolibri, 2004.

Friendly Fire: "The remarkable story of a journalist kidnapped in Iraq, rescued by an Italian secret service agent, and shot by U.S. forces," by Giuliana Sgrena. Translated by Lesley Freeman Riva. Haymarket Books, 2006.

Il Ritorno: "Dentro Il Nuovo Iraq," by Giuliana Sgrena. Feltrinelli Editore, 2010.

On March 4, 2005, along the infamous "Route Irish" leading to the Baghdad Airport, United States soldiers made a split-second decision to fire on an approaching car. As the Iraq Logs released by Wikileaks in early 2011 made clear in gruesome detail, such "checkpoint killings" had become a routine part of the American-led occupation. But while it may have at first seemed routine, the incident that day, just a few hundred yards from the airport, sparked an international incident. For, the occupants of the car in question were Major General Nicola Calipari, second-in-command at the Italian military intelligence agency, and Giuliana Sgrena, the Ital-

ian journalist whose freedom from captivity he had secured just moments before. Before he died in the ensuing hail of gunfire, Calipari managed to push Sgrenna onto the back seat and cover her with his body. Sgrenna and the driver of the car were left injured.

The U.S. military promised a prompt investigation and included two Italian representatives on the resulting commission of inquiry. But when a version of their report leaked to the press it was greeted with outrage. U.S. soldiers were not at fault in what could be described as merely a “tragic accident.” The report claimed that the Italians’ car was traveling at one hundred kilometers per hour, and the driver failed to heed the numerous warnings given by the soldiers. (Sgrenna and her driver, whose eyewitness testimony was solicited but apparently not included in the report, maintains that the shots came with no prior warning and that the car had been traveling at the much slower speed of around fifty kilometers per hour.) The two Italian observers on the American commission strongly disagreed, and pushed for work to begin on an Italian judicial inquiry. The Italian inquiry concluded that the soldiers had not followed the rules of engagement, which mandate that when soldiers want to “warn off” an approaching car, they are to first fire at the ground, then at the engine block, and only take aim at the driver and passengers as a last resort. An examination of the car revealed that of the 58 shots fired by the soldiers, 57 were directed at the passengers, while only the last bullet was fired at the engine after the car had come to a stop. They thus concluded that the soldiers had intended to kill the passengers of the vehicle and that the primary shooter, Sergeant Mario Lozano of the New York National Guard, should be charged with homicide. Predictably, however, prosecutors determined that they could not try an American for such a crime in Italy. One year later, Lozano went to the media for help in eliminating any doubts about his innocence. In an interview with Reuters that speaks to the military’s contempt for independent reporting, Lozano blamed Sgrenna for the incident:

“... if it wasn’t for Sgrenna, this situation wouldn’t happen. You know, she went out there. She wanted to mingle with the terrorists and all that. And then she gets caught. Now we have to send — now we have to send good men to go after this one person that knows that she put herself in the situation.”

In the aftermath of the shooting, Sgrenna’s recuperation was slow and difficult; the attack left her with a bullet lodged in her shoulder which had

fragmented upon impact, puncturing a lung. Still, she found time to talk to American journalists like Amy Goodman and Naomi Klein, both of whom brought news of the case to the English-speaking world. Lost in all the hoop-la surrounding the affair was Sgrena's reputation as a journalist. As a seasoned war reporter for the Italian Communist daily, *Il Manifesto*, and the author of several books, Sgrena had reported from Somalia, Afghanistan and other conflict zones before coming to Iraq in 2003. Working mainly out of Baghdad during the war, she found that operating outside the military's system of "embedding journalists" gave her independence to report more critically. Her courageous reporting in the heady early days of the invasion eventually earned her the distinguished *Calvariere del Lavoro*, an honor conferred by the President of the Italian Republic. Yet because so little of her work had ever been translated, most American commentators failed to realize at the time how accomplished a journalist she was.

Sgrena grew up in a rural region of Northern Italy. Her father was a leader in the communist railroad union, a part of her biography which pushed her on the path to radical politics. Shortly after graduating from the University of Milan in 1974, she took up what proved to be a life-long involvement with the peace movement. Writing for the weekly journal *Guerra e Pace* throughout the 1980s, she helped organize protests against the presence of nuclear missiles at the NATO base in Comiso. As she puts it in *Friendly Fire*, Comiso "was a very important period of my life, crucial to my political training and to the maturation of my pacifist conscience."

In 1988, she started working for *Il Manifesto*. Independent of any political party, *Il Manifesto* grew out of a working group composed of Communist Party dissidents, and has published a daily edition since 1971. Soon after joining *Il Manifesto*, Sgrena became the paper's go-to source for conflict reporting. Throughout the 1990s and into the 2000s, she reported from Afghanistan, eventually writing a book on the subject (*La Scuola dei Talebani*); Algeria, where her coverage of women's rights eventually gave her a reason to write another book (*Il Prezzo del Velo*); and Somalia, where in 1992 she reached Mogadishu in a plane "so small and rickety it had to circle around the clouds to avoid disintegrating when it hit turbulence." Ironically, when she went to Baghdad in February 2003, she went not as a war reporter but as a peace reporter. (She covered the huge anti-war demonstration on February 15 as a participant-observer.) When the U.S. began to bomb Baghdad the following month, she stayed on, despite her editors' entreaties to return to safety in Italy.

"For my whole life," Sgrena has said, "I have fought and written on behalf of the weakest." Such a journalistic approach would usually earn reproach in the West for violating journalistic norms of objectivity. The account of the weakest must be balanced with that of the strongest. However, in deciding to report the war from the point of view of Iraqis, Sgrena was being faithful to a different ideal: the conflict reporter as one who bears witness to the suffering of the innocents. *Il Fronte Iraq*, a collection of her reportage from Iraq, gives us a good sense of this approach. Here she incisively catalogs the ills of the occupation, including the looting of the Tawaita Center for Atomic Research—for which occupying forces had not mustered the manpower or foresight to protect. After looters stole unknown quantities of nuclear materials, villagers from the surrounding area recovered some of the looted material and—mistaking it for fertilizer—proceeded to use it on their fields. The ensuing contamination turned the area into what Sgrena calls the "Iraqi Chernobyl."

One story in particular, published first in *Il Manifesto* in June 2003 and later mentioned briefly in *Friendly Fire*, illustrates how independent reporters like Sgrena had to dodge threats not just from elements of the Iraqi resistance, but from "coalition forces," as well. The basic outline of this story was first reported by Iraqi journalists on the front page of the daily *Assaah*: two Iraqi girls, 14- and 15-years-old, from the village of Sowera, apparently had been raped by American soldiers; the soldiers then dumped their bodies in front of a local hospital under cover of darkness. One later died from wounds relating to the attack while the other disappeared, presumed to have died at the hands of her family as an "honor killing."

The American military responded by smearing the source: they claimed that *Assaah* was in the hands of aggrieved ex-Sadaamists, and as proof pointed to an anti-occupation statement made by the daily's owner. Shortly thereafter, armed American soldiers began to show up at the offices of *Assaah*; they even threatened its editor, N'ima Abdulrazzaq—a journalist who founded *Assaah* in April 2003 after a 14-year career in journalism—with dire consequences unless he retracted the story. (At the time, Sgrena was working on her own story about the alleged rapes and visited the *Assaah* offices a number of times to interview staff. In an email to me, Sgrena mentions having been present when some American soldiers came to see Abdulrazzaq; and on another occasion she was conducting an interview with the editor when the windows of Abdulrazzaq's car—parked in front of the building—were shot out by an unknown assailant.) According to Sgrena, Abdulrazzaq was even fearful that

the Americans would come to take him away. Abdulrazzaq would eventually fully retract the story and fire the reporters who wrote it. While he cited fabricated evidence and conflicting eyewitness accounts to justify his editorial decision, Sgrenna believes the American threats played a bigger role.

In order to find out what really happened to the two girls, Sgrenna went to Sowera, located on the Tigris in an agricultural zone south of Baghdad. There, she found evidence supporting the original story. Residents told her that it started when soldiers began asking some of the young men from the village whether they might be able to procure prostitutes for the Americans. Apparently, the two teenage girls at the center of this story had accepted some money to go visit the Americans because, as one of the residents told Sgrenna, the girls were from an extremely poor family. Around the time the attacks were alleged to have taken place, soldiers were encamped in the village and had been enforcing a strict curfew. However, Sgrenna confirmed that shortly after the allegations of rape surfaced, the Americans pulled their forces out of the area for fear of retaliation. This case of sexual assault went both unpunished in the military and unreported in the U.S. media.

While being unembedded surely helped give Sgrenna access to stories like the one in Sowera, she can be faulted for her tendency to cast all embedded journalists as villains. Fact is, many chose to travel with military units because they knew the risks of striking out on one's own. They knew that after only a few short years of war the number of journalists killed in Iraq exceeded those killed in Vietnam, a war of much longer duration. In August 2004, just months before Sgrenna's own kidnapping, the Italian journalist Enzo Baldoni was abducted and later killed by members of the Iraqi resistance. (According to the most recent accounting of the Committee to Project Journalists, 150 journalists have been killed in Iraq since 2003, making it the deadliest conflict for members of the press since World War II.) Those were the kinds of risks that make that Cessna flight over Mogadishu look like a walk in the park. And Sgrenna was well aware of them. Before it caught up with her, testing fate was a large part of Sgrenna's *modus operandi*. It consisted, as she puts it in *Friendly Fire*, of three elements: "run the risks, go to Iraq, report on the terrible effects of the war." For a time, running the risks seemed to endow her with a heightened sensitivity to the dangers of her job. It protected her. But it would not be enough to help her avert disaster following a visit to a refugee camp in February 2005.

Sgrenna had been obsessed with Fallujah for years and was eager to in-

interview its many refugees, many of whom ended up encamping at a mosque on the campus of Nahrein University. Friends of Sgrena's warned her that it would be extremely dangerous to go there. In fact, a French reporter, Florence Aubenas, had been kidnapped just one month earlier after interviewing the camp's refugees. (She was freed in June 2005.) However, Sgrena could not resist trying to record the stories of the Iraqis who were witnesses to one of the most devastating chapters of the war. In November, the U.S. launched a punishing assault on Fallujah, leaving it "almost razed to the ground." Nearly 40,000 houses were damaged in Operation al Fajr (Dawn); and another 4,000 destroyed. At the camp she heard stories like that of one young man who had sought shelter during the intense urban warfare:

"Wandering alone and desperate, he headed toward the mosque, usually a place of refuge. Not in this case: the floor was covered with bodies. The Americans had killed all the young men seeking shelter in the place of prayer, an old caretaker told him—he himself had been spared only because of his advanced age."

At the end of the day, Sgrena and her driver were ambushed just outside the camp. Her driver managed to escape, but her kidnappers drove Sgrena to a house in Baghdad where she spent the next month in a small, windowless room. During that time, she ate on a normal schedule and was allowed to bath twice a week; her captors communicated with her and kept her up-to-date on when she would be released. In short, she was treated kindly, as she later told an interviewer for the Swiss broadcaster RSI. But she was still in a state of constant fear for her life. Desperation turned to elation when she suddenly was freed, left in a car on the side of the road to await Calipari's arrival. (Her captors' parting words: "We promised your family that you'd return home safe and sound, but be careful: the Americans don't want you to return to Italy alive.") Then, the attack on Route Irish. Feeling responsible for the death of the person who just moments before had given her freedom, Sgrena would have difficulty sleeping for months afterward, and told interviewers of emotional trauma tied to the shooting.

A sense of unfinished business—personal and professional—motivated Sgrena's return to Iraq in 2009, an experience she documented in a series of articles later published as *Il Ritorno: Dentro Il Nuovo Iraq*. "Making my way back to Iraq," Sgrena recalls in the book's preface, "was a slow and painful process: first, a complete turning-away from anything or anyone having to

do with Iraq. Then, little by little, a few emails and the renewing of contacts." In Italy, as in America, by 2009 the Iraq war had ceased to be the major news story that it had been in previous years. "Wars are ignored," she told an interviewer who asked about her reasons for returning to Iraq. "If we no longer talk about a war, that war no longer exists." Returning to the country would enable her both to resume the sort of journalism she longed to do and give her a chance to heal old wounds by revisiting the site of her abduction.

For Sgrena, the easy part turned out to be sending back interesting stories from a forgotten war. She reported from Damascus on the plight of Iraqi refugees, especially the older women whose husbands had been killed and the younger women who had been forced into sex work to support their families. On the streets of Baghdad, she was pleased to report that women were actually much better off than in years past. But she was wary of attributing the change to the presence of foreign troops: "On the contrary, it shows that despite the war and despite the occupation, there are people that still have the power to react in positive ways." Yet another positive reaction could be found in the grassroots movement to remove the miles of concrete barriers snaking through the capital. The barriers had been erected by U.S. forces in an attempt to provide security by making it harder for suicide bombers to reach their targets, but the youthful leaders of the "Let Baghdad Breathe" coalition saw it as yet another imperialist imposition and lobbied for the barriers to be brought down.

While she could feel professional satisfaction from her return to Iraq, she had less success when it came to overcoming her personal trauma. She did manage to return for a stay at the Hotel Palestine, where she had been living prior to her abduction and where a pair of colleagues were killed when an American tank fired a cannon round at the hotel in 2004. In 2009, she found the place in poor shape, and nearly abandoned—only the eighth floor of the high-rise hotel was open for guests. Even the elevator became stuck at one point, leaving Sgrena—who describes herself as claustrophobic—to bang on the doors for twenty minutes before help arrived.

Outside the hotel, safe again on *terra firma*, she searched high and low for the site of her abduction, but failed to find it. In part, she felt bewildered by the layout of a city which obviously had changed in recent years. But as she later conceded to an interviewer, she also may not have been psychologically prepared to revisit the place where her life changed so completely. But she soon will have a second chance at that. In an email, Sgrena told me that

as soon as funds are raised, she plans to return. Even though U.S. "combat operations" in Iraq officially have ended, the violence grinds on. War needs witnesses. And if we accept Plato's dictum that "only the dead know the end of war," then perhaps the best witness is the one who sees herself not as amplifying the lies of generals, but writing on behalf of the weakest.

Book Review Essay

New Brain Trends in Art:

A Review of *Neuroarthistory: from Aristotle and Pliny to Baxandall and Zeki*

BY GREGORY SCHECKLER

Scholars Rudolf Arnheim and Ernst Gombrich grounded their work in art history and the psychology of perception. But around the 1980s, as their work grew to maturity, a contrary movement developed. It became influential: postmodern deconstructivism, also called post-structuralism. Major arts venues and magazines promoted deconstructivism, and argued that all truths were equally interchangeable constructs supported by political power rather than quality assessment and discovery of the facts. Derrida, Baudrillard and Foucault became household names in art circles, whereas Arnheim and Gombrich and their colleagues didn't gain such fame. Nevertheless, the Arnheims and Gombrichs of the arts created vast amounts of productive study. Leaning forward from and summarizing their viewpoints is John Onians' text, *Neuroarthistory: from Aristotle and Pliny to Baxandall and Zeki* (Yale University Press, 2007). His book is both compelling and reliable, and should be required reading for graduate seminars in art theory and practice. It clarifies

links among the arts and sciences, and even contains some good news for the few remaining post-structuralists.

Organized by chapter by art theorist or philosopher, Onians' book places neurological outlooks into historical contexts. Each chapter begins with a brief biography of each theorist, and then a summary of their work as related to ideas of neuroscience and contemporary art theory.

Onians' text is for the informed reader of art history and general science — it helps to have come across Plato's *Timaeus* and *Republic*, Hippolyte Taine's *On Intelligence*, Freud's *Interpretation of Dreams*, and Gombrich's *Art and Illusion*. Onians also detailed the sources of each thinker's ideas, linking them to larger trends of philosophy and culture. This in turn has the effect of showing just how little early philosophers actually knew about the brain. We can learn how their guesses inform later thinkers' questions, which gradually develop into yet better questions. Onians' book also updates many older theses. As such, Onians' book provides many snapshots of how knowledge is built, which should interest historians of science as much as students of art.

One bonus for arts writers and art historians: as our understanding of neuroscience improves, so too must we update our understandings of the arts. Rather than engaging seemingly endless literary analyses and post-structuralist jargonizing, we can fine-tune our knowledge and relate it to new evidence. Better yet, as revisions must need to occur, the arts might eventually gain a series of verifiable consensus viewpoints about how art functions. That would indeed be a welcome change away from the 20th century belief that in art anything goes, that art really only is subjective relativism. And herein is a warning for the reader: since this book's publication, many new neuroscience studies have continued to advance—some of Onians' detail already may be outdated. Fortunately, the broad principles most likely still apply.

That knowledge can progress and become more precise is a serious problem for postmodernists. One bonus for post-structuralists: Onians' text firmly establishes how contemporary neurology articulates much of what the postmodern theorist in art was so enamored of — the plurality and diversity of the arts, the subjectivity of experience, the multiple drafts of imagery and interpretation occurring simultaneously. But Onians points out, as have so many critics of deconstructivism, that these values can remain intact without having to give up on the sciences. Indeed, by embracing recent discoveries, we gain better footing than mere art theories. Post-structuralists may need to give up on their mere insistence on their ideas, but they get to keep many of their

values, and, using neurological evidence, can demonstrate the necessity and viability of a few of their core values.

One problem facing neuroscientific views of the arts: false stereotypes of science as rending mystery with its reductions of pure logic. Such stereotypes of the sciences sit at the center of reactions against science in general: how can you reduce art to something so lacking passion, so emotionless, so lacking in mystery? Neuroscience, for example, shows us that the mind is what the brain does, and not all that the brain does. But before you dismiss this common contemporary statement about the mind as a mechanistic reduction belittling the magic of the soul, you should understand that the brain is intricate — to say that the mind is much of what the brain does is to say that the mind, whatever it is, is borne of a beautiful series of interlayered, interwoven and interdependent intricacies that we are beginning to understand, that we know to be constantly modeling and remodeling and filtering and amplifying all aspects of our experience. The intricacies of the brain are astonishingly beautiful, more so for being real and verifiable.

Another problem: we also might ask what makes the visual arts, as perhaps emergent properties of cognition, any different than the brain-worlds of visual perceptions that aren't art, but are visual? With neurological approaches, we run the risk of making statements about art that are a little too global or all-encompassing, and as such it's difficult to find any conclusions that apply to the practice of making new artworks.

But this shouldn't deter us; to the contrary, I think it's exciting for us to have a great deal more to discover. Onians' book certainly is a good proof of this excitement. And just as art helped unpack early ideas of anatomy, and early optics, perhaps today it can help us learn to understand some of the laws of the mind. I'm reminded of the great teacher Sir Joshua Reynold's prescient words from his 18th century *Discourses on Painting*, that "a room hung with pictures is a room hung with thoughts." Onians' text concurs, and provides an outstanding overview of ideas and evidences: reading it is reading a new, 21st century approach to art history.

Book Review Essay

Academically Overstated:

Review of *Academically Adrift: Limited Learning on College Campuses*, Richard Arum and Josipa Roksa
(University of Chicago Press, 2011)

BY GREGORY SCHECKLER

Over-emphasizing how college studies do not increase critical thinking skills, Arum and Roksa's book, *Academically Adrift: Limited Learning on College Campuses* (University Chicago Press, 2011), skyrocketed into the forefront of recent texts critical of higher education. It is an important book for political reasons, but it is too thin on data.

We're told that 36 percent of students don't improve their critical thinking as a result of college. How come so many students don't learn more? The authors spread the blame across students' habits, professors' teaching and structural issues, such as when research conflicts with teaching. The core of the book is that higher education's mission is to increase critical thinking skills. If you buy into this narrow assumption, then it appears that teachers aren't helping about a third of their students.

What are some solutions? Roksa and Arum emphasize that faculty who demand high standards, integrating assignments that require students to read,

write, and synthesize course materials, will tend to improve student learning. They base this prediction on the College Learning Assessment (CLA) exam in relationship to their own surveys of student experiences.

Unfortunately, contrary to the authors' conclusions, demanding teachers made little difference. For example, when discussing how CLA scores might improve if teachers assigned more reading and writing, the authors predicted a potential 23-point increase in CLA scores. Considering that CLA scores range from 0 to 1,800 (in 2007), we must recognize that 23 points is, well, not much. This small increase probably falls within the standard range of error for this kind of study. Such small gains show that the effort to make college courses more rigorous actually doesn't add up to big enough improvements in students' increased learning.

Of students' responsibilities, we're told that studying helps. But the evidence shows it didn't help much. Roksa and Arum's data predicted less than a 2 percent advantage between students who studied only a few hours per week, versus those who studied 15 to 20 hours. Such small gains, only about a tenth of a percent per hour of studying, might demonstrate that students make wise cost-to-benefit balances, seeing that too much effort doesn't have a big enough payoff. It's also possible to use less time but study more effectively.

Even if we add together all the predictions that the authors discussed (score increases for teacher rigor, study habits, choice of major, etc.) the data predict too little an increase to merit restructuring higher education. Arum and Roksa appear to have overplayed and overstated the significance of their research's data.

Additionally, in order for a course to be considered rigorous, the authors quantified 40 pages of reading per week, plus at least 20 pages of writing per semester as rigor. But, which books and what quality of writing? And further, what about art courses, such as introductory painting, where the critical task is making paintings? What about a math class where three or four pages of reading complex formula can actually be weeks of study? *Academically Adrift* too often mistakes quantity for quality, and mere literacy for in-depth, critical thinking.

Often valid comparisons were missing. For example, today's students aren't studying as much as students did in the 1960s. Arum and Roksa suggest that this fact indicates decreased learning. But we don't know what students in the 1960s would have scored on today's CLA exam—did their increased hours studying help them? And meanwhile, we ought to ask whether students'

non-study activities create value. Compared to earlier generations, we know our students invest time playing video games. A study published in March 2012 showed that playing video games increased all types of creativity (Jackson et al, "Information technology use and creativity: Findings from the Children and Technology" *Computers in Human Behavior*, 2011 DOI: [10.1016/j.chb.2011.10.006](https://doi.org/10.1016/j.chb.2011.10.006)). Could it be that our students gain more cognitive benefit, and more efficiently, from their activities outside of class — such as video games — than by too much emphasis on inessential academic tasks assigned by curricular authorities? Maybe a lesson is not that teachers ought to return to stodgy old ways of delivering reading and writing assignments and more assessment tests, but rather, that professors should evolve into the world's best video game designers. Maybe education should skip mere video games, and go for the full holodeck experience? If mere video games improve creativity, then, why not?

It's difficult to not want to agree with Arum and Roksa's intent, which places more emphasis on creating successful undergraduate learning. And any professor who has slogged through committee workloads knows by hard experience how too easy it is to complain that "undergraduate learning is peripheral to the concerns of the vast majority of those involved with the higher education system" (p.143). Nevertheless, their data are not robust enough to suggest causes and deep correlations for just exactly how to improve the overall quality of learning, which in turn means they have not demonstrated that higher education is in crisis, despite their pleas that the problems of higher education are so entrenched that "some form of exogenous shock to the system" is likely required; a Sputnik moment, perhaps.

The book's unwarranted conclusions fuel political forces against higher education. Already, the book's conclusions have been co-opted by lobbyists who wish to de-fund higher education. And thus for political reasons, higher education cannot ignore this book. My own sense of the situation is that we all would benefit from decreased costs of tuition and fees with greater access for more students, improved hiring of all full-time teachers, all while maintaining the quality of teaching and research. Ideally, we decrease costs and also increase quality—but to do that we'll need much more robust data than what *Academically Adrift* provides.

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Writer's Guidelines

While emphasizing articles of scholarly merit, *The Mind's Eye* focuses on a general communication of ideas of interest to a liberal arts college. We welcome expository essays as well as fiction. We publish yearly. The deadline for submissions is July 15.

Submissions should adhere to these guidelines:

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